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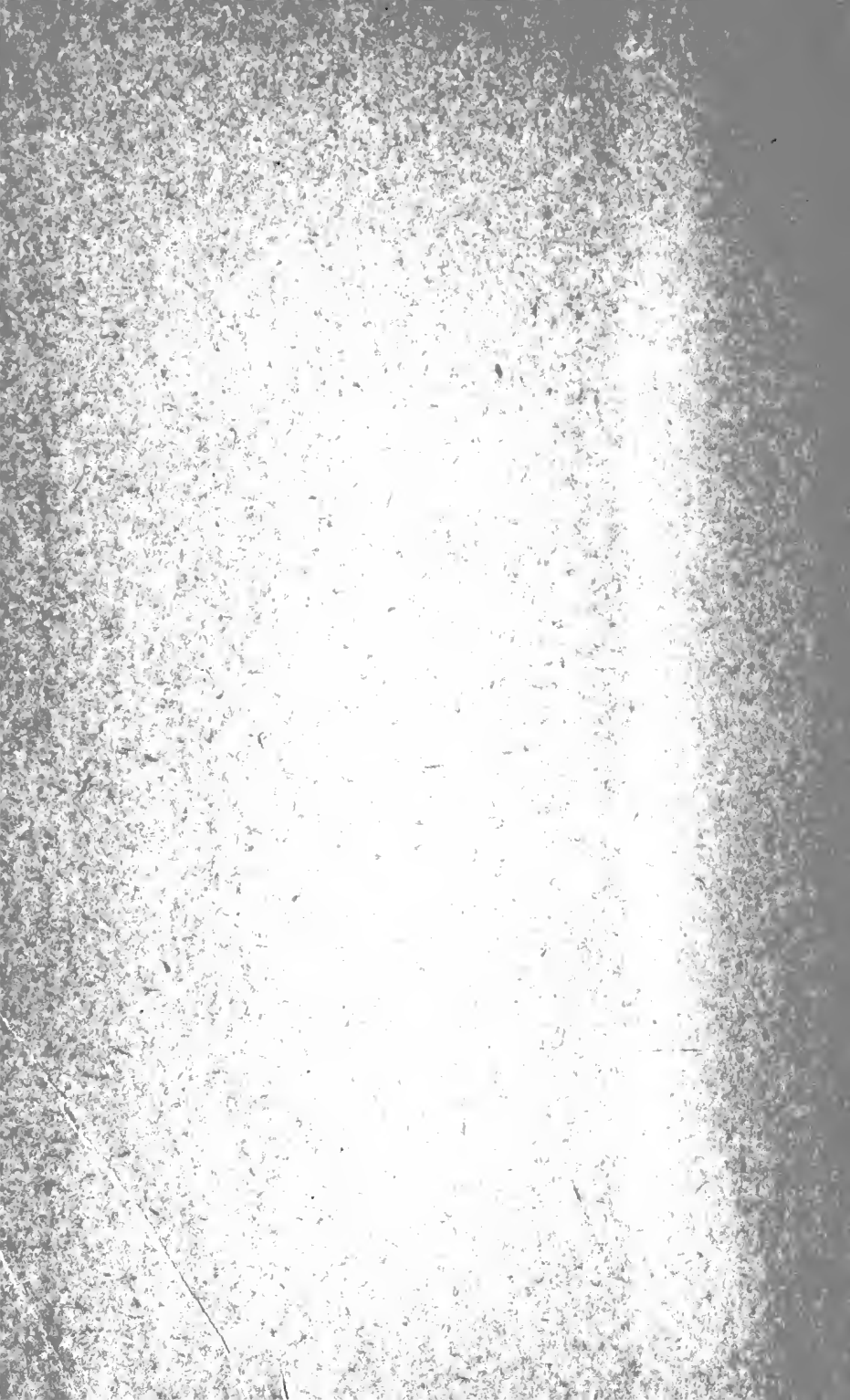
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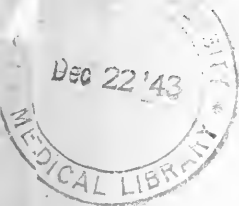
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Columbia University in the City of New York

SCHOOL OF DENTISTRY

ANNOUNCEMENT
1917-1918



Serial
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GENERAL STATEMENT

In September, 1916, students in dentistry were admitted to courses in Columbia University at the College of Physicians and Surgeons. On March 5, 1917, the Trustees of Columbia University established a School of Dentistry as of September 27, 1916, so that the conduct of courses from that date, as forming part of the work of the School, might be officially recognized.

Dentistry has become an increasingly important factor in the understanding, diagnosis and treatment of diseases which hitherto have been obscure in origin but which are now known to arise from pathological conditions of the mouth and teeth, and can accordingly be controlled and prevented. Recent investigations have shown that rheumatism, anemia, arterio-sclerosis, digestive disorders, diseases of the heart and kidneys, nervous affections, neuralgia, etc., are influenced by and are often caused by diseased teeth and neglected mouths.

Dentistry, quite as much as any of the medical specialties, is logically a branch of general medicine, although traditions, which have separated medicine and dentistry and which operate against the public welfare, have prevented due recognition of this fundamental fact.

It is obvious that dentistry cannot render its highest service to the individual, or in the interest of public health, unless dentists are thoroughly educated in the knowledge of general medicine and of dentistry as a medical specialty. Columbia University has provided such a broad special preparation for the practice of dentistry by establishing a School of Dentistry coordinate with the School of Medicine and by establishing a five-year course in dentistry which shall include the first two years of the required course in the School of Medicine.

The generous gift to the University of one hundred and twenty-five thousand dollars (\$125,000) by Mr. James N. Jarvie—the first contribution to an endowment fund which a committee of dentists and physicians is seeking to obtain in support of the new School—justified the University in inaugurating the work of the School of Dentistry in the buildings of the College of Physicians and Surgeons.

School of Dentistry

The courses in the School of Dentistry are based upon the same preliminary requirements as the study of medicine in Columbia University. The first two years will be given in the classrooms of the College of Physicians and Surgeons and the course of study will be identical so far as concerns laboratory work in anatomy, biochemistry, bacteriology, medicine, pathology, pharmacology, physiology, and surgery. The work in the second year now devoted to obstetrics, which is a special subject, will be replaced by a course in elementary dental technics. After these two years, the dental students will devote themselves to their special science. A dental clinic has been in operation for five years in the Vanderbilt Clinic, which will be enlarged and developed as a part of the new School. The entire course, therefore, requires five years in all, two of which are given mainly to medicine, although certain courses in dentistry are included, namely,

operative dentistry and prosthodontia. The last three years are confined entirely to subjects in dentistry.

Prospective students should pay particular attention to the new regulations which will go into effect in the fall of 1918 (see page 9). Women may be admitted to the dental course on the same conditions as to the medical course.

Oral Hygiene

Under the Department of Extension Teaching, Columbia University conducts courses in oral hygiene at the Vanderbilt Clinic and at Morningside Heights. These courses are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least one year of high school work, and the attainment of at least nineteen years of age. Full information may be obtained by addressing Dr. Louise C. Ball, Resident Director, or Dr. H. Hart, Assistant Resident Director, at the Vanderbilt Clinic, or the Director of Extension Teaching, Morningside Heights.

Advanced Courses in Dentistry

Advanced courses in dentistry for practitioners are offered by the Department of Extension Teaching in the laboratory and infirmary at 35 West 39th Street. These courses cover the subjects of operative and prosthetic dentistry, plate prosthesis, periodontia, and dental ceramics, and vary in length from five to eleven weeks, according to the requirements of the subject. Full information may be obtained from Mr. Louis J. Weinstein, Resident Director, 35 West 39th Street, or at the office of the Director of Extension Teaching, Morningside Heights.

Requirements for Admission to the School of Dentistry

Admission—The entrance requirements for the academic year of 1917-1918 are the satisfactory completion of not less than two full years of study, or the equivalent, in an approved college or scientific school, and college courses must have included at least one year's instruction in physics, inorganic chemistry, biology (botany and zoology) and French or German. (See 1918-1919 requirements, page 9.)

Application—It is desirable that candidates make application in the spring in order that any deficiencies may be made up, if possible, by attendance at the Summer Session. This is particularly desirable for candidates who have a sufficient time credit of two years' college work but who lack some part of the necessary courses in chemistry, physics, or biology.

A blank form for filing college credits will be furnished by the Registrar upon application, which must be filled out, signed and sealed by the authorities of the college at which the applicant has taken his preliminary education. All applications should be accompanied by the sum of twenty-five cents, to defray the cost of the dental student's certificate, which is required by the laws of the state.

Combined course, Columbia University—Combined course for the degrees of A.B., B.S. and D.D.S. The attention of students of dentistry who propose to enter the Columbia School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and a dental degree in seven or eight years. By permission of the Dean of Columbia College, the first year in the School of Dentistry may be elected by

students in Columbia College who have maintained a satisfactory grade in their previous work in the College. Such students must have taken at least three years of residence in Columbia College and have secured at least eighty-eight points (out of the 124 required for the A.B. degree) to avail themselves of the two-year professional option in the dental school. In order to take the 'eight-year 'combined course' and avail themselves of the one-year professional option, the students must take ninety-four points out of the 124 required in Columbia College before entering the School of Dentistry at the College of Physicians and Surgeons. The School of Dentistry requires that physics, inorganic chemistry, and biology must be included in the eighty-eight or ninety-four points taken in Columbia College. This permits a student to obtain by excellence of work both the degree of Bachelor of Arts or of Science and that of Doctor of Dental Surgery in seven or eight years according to whether he offers two years or one year of the dental curriculum for part of the scientific training entitling him to his bachelor's degree. Students desiring to effect this combination of courses should address the Secretary of Columbia University for more complete information.

Combined courses with other universities—The University of Rochester, Colgate University, and Hobart and Ripon Colleges, will confer the bachelor's degree upon students who have elected and successfully completed the first year in the School of Dentistry at the College of Physicians and Surgeons in lieu of the senior year in those colleges.

Requirements in the sciences—Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, and general biology.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General inorganic chemistry, including laboratory work, *Chemistry 3c-4c or 6c-7c*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Requirements for Admission to Advanced Standing

Admission to advanced standing—In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. *It is essential that students offering themselves for admission to advanced standing should have had before admission all the preliminary work presented in the curriculum of the School of Dentistry.*

Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their schools of previous residence.

Admission of special students—Graduates in dentistry or students who desire to pursue a special course without graduation may register as special students, after approval by the head of the department conducting the course. Such special courses do not count in any way as part of the five years' course required of candidates for the degree of Doctor of Dental Surgery.

Requirements for graduation—In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

Graduate instruction—An increasing number of advanced courses is being opened to graduates in dentistry. These now include courses in bacteriology, biological chemistry, dermatology and syphilology, diseases of children, laryngology and otology, neurology, pathology, physiology, practice of dental medicine, oral surgery, therapeutics, and anesthesia. Those who wish such opportunities for study are referred to the departmental statements (page 41) in the Announcement of the School of Medicine.

Summer Session—July 8 to August 16, 1918. Courses in medicine in the Summer Session are open to all properly qualified students without examination. They will count toward the degree of Doctor of Dental Surgery for those who have been admitted to the School of Dentistry, or those who, being eligible for admission to advanced standing, shall subsequently matriculate, especially for those who are candidates for advanced standing, and are deficient in any of the subjects offered. Courses in the Summer Session cannot be accepted from students prior to matriculation in the School of Dentistry except to fulfill deficiencies in their work. Such courses cannot be offered to anticipate work required from students of equal rank except by students already entered in the School.

For full particulars and an Announcement of the Summer Session apply to the Assistant Registrar, 437 West 59th Street.

Attention is called to summer courses in anthropology, biochemistry, chemistry, nutrition, physics, physiology, psychology, and zoology. For all particulars of these address the Secretary of Columbia University.

Changes in Requirements for Admission, Beginning with the Opening of the Winter Session in September, 1918

The minimum requirements for admission to the first year will comprise two years of college work aggregating seventy-two points, as rated at present in Columbia College. This work must include one year of physics, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative chemical analysis, one-half year of organic chemistry, one year of biology, two years of college English, and the equivalent in either French or German of courses A and B as prescribed by Columbia College. The preparation in physics, chemistry, and biology, which will be required for admission, is represented by the following courses in Columbia College:

Physics A1-A2—General elementary physics. Three lectures and two hours' laboratory work a week for one year.

Chemistry 3-4—General inorganic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 11—Qualitative analysis. Two lectures and six hours' laboratory work a week for one-half year.

Chemistry 41—Organic chemistry. Three lectures and six hours' laboratory work a week for one-half year.

Zoology 1-2—Elementary biology and zoology. Two lectures and four hours' laboratory work a week for one year.

While the above courses represent the minimum requirements for admission to the first year, it is highly recommended that, if possible, the college work include three, instead of two, years, so as to allow a more thorough preparation in physics, chemistry, and biology. Such a three-year course, as offered by Columbia College, includes among other studies the courses in the basal sciences indicated below. Although this combination of courses is given in Columbia, it is not essential that other colleges should adhere to this curriculum, except in so far as the minimum just given above is concerned. Other advanced work in the preliminary sciences would undoubtedly fit the student for his medical work in a most satisfactory manner.

Mathematics 1—Algebra. Three hours a week for one-half year.

Mathematics 4—Analytical geometry. Three hours a week for one-half year.

Mathematics 15-16—Differential and integral calculus. Three hours a week for one year.

Physics 2—Mechanics and wave motion. Three lectures and one recitation a week for one-half year.

Physics 3—Heat and light. Three lectures and one recitation a week for one-half year.

Physics 4—Electricity. Three lectures and one recitation a week for one-half year.

Physics 41-42—Physical laboratory. Four hours a week for one year.

Chemistry 3-4—General inorganic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 11—Qualitative analysis. Two lectures and six hours' laboratory work a week for one-half year.

Chemistry 66—Quantitative analysis. One lecture and six hours' laboratory work a week for one-half year.

Chemistry 41-42—Organic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 22—Physical chemistry. Three lectures a week for one-half year.

Zoology 1-2—Elementary biology and zoology. Two lectures and four hours' laboratory work a week for one year.

Zoology 91-92—General zoology. Two lectures and six hours' laboratory work a week for one year.

After September, 1920, the School of Dentistry will admit 'combined course' students from other institutions to advanced standing upon the conditions, first, that they have fulfilled the educational requirement of the classes in the college to which they ask admission, especially as to this pre-dental equivalent of seventy-

two points in Columbia College, and, second, that they have received a bachelor's degree for this work prior to their admission to the School of Dentistry.

Columbia University will give the degree of Bachelor of Science in Dentistry to every student entering the College of Physicians and Surgeons on this standard, upon the completion of the first two years. Those students who elect the 'combined course' in Columbia University will receive the degree of A.B. upon the nomination of Columbia College.

Registration

The academic year of 1917-1918 commences on Wednesday, September 26, 1917, and continues until June 5, 1918. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September.

No student is permitted to attend any academic exercise until he has complied with the regulations in regard to registration and fees. Every student will be required to register personally in the Assistant Registrar's office, 437 West Fifty-ninth Street, on a blank provided for the purpose.

Students are requested, in case of withdrawal during the academic year, to notify the Assistant Registrar in writing without delay, as no application for return of fees will be considered if this requirement has been omitted.

Letters requesting more detailed information than is contained in this Announcement, and all correspondence regarding admission, should be addressed to the Chairman of the Administrative Board, 301 University Hall.

Fees

Drafts and checks should be drawn for the exact amount to the order of Columbia University, as no change will be returned to students on checks.

All fees are payable semi-annually in advance. Registration will not be complete until such fees are paid. Payment of fees after the last day of registration imposes automatically the statutory charge of \$5 for this privilege. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

Summary of Fees

- | | |
|--|------|
| (a) University fee: | |
| For all students for each Session or any part thereof | \$ 5 |
| (b) Tuition fee: | |
| For all students per point, except in cases where a special fee is fixed for a particular course | 6 |
| (c) For a degree or a certificate, or for an examination therefor: | |
| For any professional or technical degree or certificate, including the degree of D.D.S. in the School of Dentistry | 25 |
| (d) Privileges: | |
| 1. Late registration or application | 5 |
| 2. Deficiency and special examinations | 5 |
| With a maximum fee for examinations in a single series of | 25 |

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President. (See *Administrative Procedure* following.)

(e) Rebates:

1. The University fee and the degree fee are not subject to rebate.
2. After the last day of the period provided for change of course, as announced in the academic calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar.

Administrative Procedure

Late registration: For the ultimate date for the completion of registration without the payment of the additional fee, see the academic calendar (page 27).

Late application: For the ultimate date for filing an application for admission, or for a deficiency or special examination, or for a degree, without the payment of the additional fee, see the academic calendar (page 27).

Deposits—A deposit of \$15 will be required in the first year to cover material and breakage in the laboratories of anatomy, biological chemistry, and physiology.

Fees for repeated courses—Students obliged to repeat the work of any year are required to pay a tuition fee of \$6 per point for each subject repeated.

Expenses of Students

The following estimate of the probable annual expenses of a candidate for a degree in the School of Dentistry is based on the statements of students:

	<i>Low</i>	<i>Average</i>	<i>Liberal</i>
University fee (each year)	\$ 10	\$ 10	\$ 10
Tuition (\$6 per point)	186	240	252
Books	20	28	35
Laboratory charges (first year)	15	15	15
Room (37 weeks)	93	130	180 up
Board (37 weeks)	148	185	233 up
Clothes and laundry	75	100	125 up
College incidentals	16	21	24 up
Other expenses	46	74	98 up
Graduation fee (last year)	25	25	25 up
<i>Total</i>	<i>\$634</i>	<i>\$828</i>	<i>\$997</i>
Instruments and equipment (total for five-year course)	100	200	300

Physicians and Surgeons Students' Club—346 West Fifty-seventh Street. There are twelve living rooms at the Club, five single and six double, at prices ranging from \$3 to \$3.50 per week per man. Weekly rates for board range between \$4.50 and \$5 per week. Students who do not room at the Club may obtain board there, if they wish.

PLAN OF INSTRUCTION

First Year

Anatomy 101, 103-104, including histology and embryology. Histology and embryology, 12 hours lectures, conferences and laboratory per week, Winter Session. 8 points. Anatomy, 12 hours demonstrations, recitations, conferences, and dissections per week throughout the year. 8 points each Session.

Biological chemistry 51 and 102. Organic chemistry, 8 hours laboratory, lectures, demonstrations, and conferences per week, Winter Session. 4 points. Biological chemistry 8 hours lectures, demonstrations, conferences, and laboratory per week, Spring Session. 4 points.

Operative dentistry 101-102. 1 hour lecture, 1 hour laboratory per week, Winter Session; 1 hour lecture, 3 hours laboratory per week, Spring Session.

Physiology 106. 3 lectures, 1 demonstration, 2 recitations, and 3 hours laboratory per week, Spring Session. 8 points.

Prosthodontia 101-102. 1 hour lecture, 3 hours laboratory per week, Winter Session; 1 hour lecture, 6 hours laboratory per week, Spring Session.

Second Year

Anatomy 105. 3 hours lectures, 12 hours laboratory and dissections per week, Winter Session. 8 points.

Bacteriology 101. 6 hours laboratory per week, Winter Session. 3 points.

Bacteriology 205. Immunity. 2 hours lectures with demonstrations per week, Winter Session. 1 point.

Operative dentistry 103-104. 2 hours lectures per week, Winter Session; 4 hours laboratory per week, Spring Session.

Pathology 102 and 106. General and special pathology, 2½ hours lectures, 9 hours laboratory per week, Spring Session. 4 points. Gross pathological anatomy and attendance upon autopsies, 4 hours demonstrations per week, Spring Session, and at other times as occasion offers. 4 points.

Pharmacology 101-102. Experimental pharmacology, 1 hour lecture per week, Winter Session; 1 hour lecture, 2 hours recitations, and 4 hours laboratory per week, Spring Session. 1 point Winter Session, 3 points Spring Session.

Physiology 107. 3 hours lectures, 2 hours recitations, 1 hour demonstration, and 3 hours laboratory per week, Winter Session. 8 points.

Practice of medicine 102, 104, and 106. Elementary medical clinic, 1½ hours lectures and clinics per week, Spring Session. 1 point. Physical diagnosis, 2 hours practical instruction per week, Spring Session. 1 point. Clinical pathology, 4 hours laboratory per week, Spring Session. 2 points.

Prosthodontia 103-104. 1 hour lecture, 3 hours laboratory per week throughout the year. 1 point each Session.

Surgery 101-102. 2 hours recitations per week, Winter Session; 4 hours demonstrations and clinics per week, Spring Session. 1 point each Session.

Third Year

Comparative dental anatomy. See Operative dentistry 109-110. 1 hour lecture per week throughout the year. 1 point each Session.

Crown and bridgework 101-102. 1 hour lecture, 1 hour recitation, 6 to 9 hours laboratory per week throughout the year. 4 points each Session.

Dental anatomy. See Operative dentistry 107-108. 1 hour lecture, 4 hours laboratory per week throughout the year. 2 points each Session.

Dental histology. See Pathology 107-108. 2 hours lectures and recitations per week throughout the year; 2 hours laboratory per week, Winter Session. 2 points each Session.

Metallurgy. See Prosthodontia 107-108. 1 hour lecture, 1 hour recitation, 2 to 3 hours laboratory per week throughout the year. 2 points each Session.

Oral surgery 104. 1 hour lecture or recitation per week, Spring Session. 1 point.

Oral prophylaxis and hygiene. See Oral hygiene 101-102. 1 hour lecture, 1 hour demonstration and practice per week throughout the year. 1 point each Session.

Operative dentistry 105-106. 2 hours lectures per week, 200 hours laboratory and infirmary a year, throughout the year. 4 points each Session.

Orthodontia 102. 1 hour lecture, 2 hours laboratory per week, Spring Session. 1 point.

Prosthodontia 105-106. 1 hour lecture, 1 hour recitation, 10 hours laboratory per week throughout the year. 4 points each Session.

Fourth Year

Anesthesia. See Oral surgery 108. 1 hour lecture, 1 hour demonstration per week, Spring Session. 2 points.

Crown and bridgework 103-104. 1 hour lecture, 1 hour recitation, 8 to 10 hours infirmary and laboratory per week throughout the year. 4 points each Session.

Dental pathology 109-110. 1 hour lecture and recitation per week throughout the year; 2 hours laboratory per week, Winter Session. 2 points each Session.

History, ethics, and economics of dentistry. See Operative dentistry 115. 1 hour lecture per week, Winter Session. 1 point.

Operative dentistry 113-114. 1 hour lecture per week, Winter Session, 2 hours lectures per week, Spring Session; 15 hours infirmary per week throughout the year. 5 points each Session.

Oral surgery 105-106. 1 hour lecture or recitation, 1 hour clinic per week throughout the year. 2 points each Session.

Orthodontia 103. 1 hour lecture, 2 hours laboratory per week, Winter Session. 2 points.

Prosthodontia 109-110. 1 hour lecture, 1 hour recitation per week, with laboratory and infirmary practice on practical cases throughout the year. 2 points each Session.

Radiography. See Operative dentistry 111-112. 1 hour lecture per week, Winter Session. 2 hours laboratory per week throughout the year. 2 points each Session.

Fifth Year

Anesthesia. See Oral surgery 111. 1 hour laboratory per week, Winter Session. 1 point.

Crown and bridgework 105-106. 1 hour lecture per week, Winter Session. 2 hours infirmary and laboratory per week throughout the year. 1 point each Session.

Dental pathology 111-112. 2 hours lectures and recitations per week throughout the year. 2 points each Session.

Oral surgery 109-110. 1 hour lecture or recitation, 2 hours clinic per week throughout the year. 2 points each Session.

Operative dentistry 119-120. 1 hour lecture per week, Winter Session. 21 hours infirmary per week throughout the year. 8 points Winter Session, 7 points Spring Session.

Orthodontia 105-106. 1 hour infirmary per week throughout the year. 1 point each Session.

Prosthodontia 111-112. 1 hour lecture per week throughout the year. 1 point each Session.

Radiography. See Operative dentistry 117. 1 hour lecture, 1 hour laboratory per week, Winter Session. 1 point.

Examinations and Standing

Examinations are held in January and at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See fall examination calendar.)

No student will be recommended for the degree of D.D.S. until he shall have completed all the required practical work and passed satisfactory examinations in all the subjects of the entire five years' course.

The standing which regulates a student's advancement to the work of the succeeding year is determined as follows:

An unsatisfactory record of practical work in any subject may bar a student from examination, the result being failure in the year's work in that subject. By a satisfactory record in practical work is meant a record of punctual attendance, unless prevented by illness or unavoidable causes, on the practical courses. These courses can be taken only during the year to which they belong, so that they cannot be made up at a later time, except in those cases where provision is made in the Summer Session.

Conditions for Advancement

1. A student is not allowed to go on with his class who has failed in any one of his courses, until he has removed that failure to the satisfaction of the head of the department involved.

2. A student who has failed in two or more of his courses at the end of any academic year is automatically dropped from the school and can neither go on with his class nor be given an opportunity to pass off the failures, nor repeat the year.

3. A student who has failed in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.

4. No student is allowed to take more than six years in which to complete the professional work for his degree. He may repeat only one year during his course.

5. A student who has failed in one course and repeated the entire year in which the course was given is automatically dropped from the school, if he in a subsequent year fails in one of his courses and does not succeed in passing it off in the fall.

Libraries

The libraries of the College of Physicians and Surgeons consist of a general reference library with reading room, and the special libraries of various departments. The general reference library is located on the first floor of the main building. It is open during the day and is freely accessible to all students. It contains 7,500 volumes and 8,000 pamphlets, which include a collection of current text-books and monographs and the most important current medical and dental journals. The books are classified according to the classification of the Library of Congress, and are catalogued with author, subject, and title entries. The catalogue will eventually become a union catalogue of all books in the different libraries of the College. Books are loaned out over night for the convenience of students who wish to study at home. The special libraries are located in the rooms of the various departments. They consist largely of periodical literature, but include many monographs and other books relating to the subjects of the respective departments. They are of special interest to the investigators in these departments, but may be used by other students upon special request.

The library is open on week days from 9 a. m. to 5 p. m. and on Saturdays from 9 a. m. to 1 p. m.

More than three hundred periodicals are received in the several libraries of the College. The number of volumes and pamphlets is as follows:

Anatomy	1,700 Volumes	2,000 Pamphlets
Biological Chemistry	2,800 Volumes	8,000 Pamphlets
Pathology	5,700 Volumes	2,000 Pamphlets
Physiology	8,000 Volumes	9,500 Pamphlets
Practice of Medicine (Janeway Library at the Presbyterian Hospital)	3,000 Volumes	3,300 Pamphlets
Reference Library	7,500 Volumes	8,000 Pamphlets
Pharmacology	450 Volumes	
Surgery, Hartley and Blake Libraries (at the Presbyterian Hospital)	1,000 Volumes	1,000 Pamphlets
<i>Total</i>	<i>30,150 Volumes</i>	<i>33,800 Pamphlets</i>

University Privileges

As the School of Dentistry is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of any department of the University. Students who can spare the time, and who are qualified by their previous training, may pursue courses of study and research in any department of the University. They may reside in the University dormitories at Morningside Heights, and are eligible to membership in the various social and other organizations of the student body.

University Libraries—The libraries on Morningside Heights are open to all students of dentistry, and books may be borrowed for home use. They include collections on anatomy, biochemistry, public health, nursing and other subjects related to medicine and dental science, and supplement the special collections available in the College of Physicians and Surgeons and in the New York Academy of Medicine, 17 West 43d Street. The library of the College of Pharmacy, 115 West 68th Street, is also open to students in the School of Dentistry.

Residence Halls—Hartley, Livingston, and Furnald Halls on South Field are open for the accommodation of students in the School of Dentistry.

A pamphlet containing floor plans of the residence halls and indicating the charge for each room will be mailed upon application to the Secretary of the University.

License to Practise Dentistry in New York State

Those desiring to take the New York State Board examinations are advised to address Mr. H. H. Horner, Chief of Examination Division, New York State Education Department, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

Examinations—The examinations are conducted by the Department and answer papers are read and marked by the board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and

pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

Schedule of examinations for license to practise dentistry from 1917 to 1920:

<i>Year</i>	<i>1917</i>	<i>1918</i>	<i>1919</i>	<i>1920</i>
Winter	Jan. 30–Feb. 2	Jan. 29–Feb. 1	Jan. 28–31	Jan. 27–30
Spring	May 22–25	May 21–24	May 20–23	May 18–21
Summer	June 26–29	June 25–28	June 24–27	June 29–July 2
Autumn	Oct. 2–5	Sept. 24–27	Sept. 16–19	Oct. 5–8

Departmental Statements

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S.; to candidates for the degree of A.B. in Columbia College, and to candidates for the degree of A.M. or Ph.D. and to graduates in dentistry and medicine.

Anatomy

Anatomy 101—Histology and embryology. First year. 9 hours conference and laboratory, 3 hours classroom per week, Winter Session. Credit X. 8 points. Professors HUNTINGTON and DANCHAKOFF, and Dr. SHARP and assistants

Conference and laboratory, 9 a. m.–12 m., Monday, Wednesday, and Friday

Lecture, 12 m.–1 p. m., Monday, Wednesday, and Friday

Students in the School of Dentistry will be required to take with this work in anatomy Operative dentistry 101-102, amounting to 1 hour lecture and 1 hour laboratory work per week, Winter Session, and 1 hour lecture, and 3 hours laboratory work per week, Spring Session. See Operative dentistry 101-102.

Anatomy 103-104—Anatomy of the extremities; preliminary visceral anatomy. First year. 12 hours demonstrations, recitations, conferences and dissections per week each Session. Credit X. 8 points each Session. Drs. BROWN and VAUGHAN and assistants

Demonstrations, recitations, conferences and dissections, 2–6 p. m., Monday, Wednesday, and Saturday

Anatomy 105—Anatomy of head, abdomen and thorax; neuro-anatomy. Second year. 3 hours lectures, 12 hours laboratory and dissections per week, Winter Session. Credit X. 8 points. Drs. ST. JOHN and COBB

Lectures, 9–10 a. m., Tuesday, Wednesday, and Thursday

Laboratory, 2–5 p. m., Monday, Wednesday, Thursday, and Friday

Students in the School of Dentistry will be required to take with this work in anatomy Operative dentistry 103-104, amounting to 2 hours lectures per week, Winter Session, and 4 hours laboratory per week, Spring Session. See Operative dentistry 103-104.

Bacteriology

Bacteriology 101—General bacteriology. Second year. 6 hours laboratory per week, Winter Session. Credit X. 3 points. Professor ZINSSER and Drs. DWYER, BALLS, and TSEN

Laboratory, 10 a. m.—1 p. m., Tuesday and Friday

Bacteriology 205—Immunity. Second year. 2 hours lectures with demonstrations per week, Winter Session. Credit X. 1 point. Professor ZINSSER

Lecture, 5–6 p. m., Tuesday and Thursday

Course on the principles of infection, immunity, serum diagnosis, and therapy.

Biological Chemistry

Biological chemistry 51—Organic chemistry. Elementary course. First year. 1 hour lecture, 1 hour recitation, 6 hours laboratory per week, Winter Session. Credit X. 4 points. Professor GIES and Dr. MILLER and assistants

Laboratory, 9 a. m.—12 m., Tuesday; 2–5 p. m., Thursday

Lecture, 12 m.—1 p. m., Tuesday

Demonstration or recitation, 12 m.—1 p. m., Thursday

Course on the fundamental facts and theories of organic chemistry, treated from the biological point of view and in direct preparation for Biological chemistry 102 (below).

(This course will be given for the last time in the Winter Session of 1917–1918. Thereafter its equivalent will be required for admission to the Schools of Medicine and Dentistry. See page 9.)

Students in the School of Dentistry will be required to take with this work in biological chemistry Prosthodontia 101, amounting to 1 hour lecture and 3 hours laboratory per week, Winter Session. See Prosthodontia 101.

Biological chemistry 102—Elements of normal nutrition. First year. 1 hour lecture, 1 hour recitation, 6 hours laboratory per week, Spring Session. Credit X. 4 points. Professor GIES and Dr. MILLER and assistants

Laboratory, 10 a. m.—1 p. m., Tuesday and Thursday

Lecture, 9–10 a. m., Thursday

Demonstration or recitation, 12 m.—1 p. m., Friday

Course in physiological chemistry that deals primarily with the chemistry of general nutrition. Includes consideration of the chemistry of the teeth, saliva, and related oral subjects.

Students in the School of Dentistry will be required to take with this work in biological chemistry Prosthodontia 102, amounting to 1 hour lecture and 6 hours laboratory per week, Spring Session. See Prosthodontia 102.

Crown and Bridgework

Crown and bridgework 101–102. Third year. 1 hour lecture and 1 hour recitation, 6 to 9 hours laboratory per week, each Session. Credit X. 4 points each Session. Professor PEESO and assistants

Preliminary study of the general principles of crown and bridgework and the indications for its use in artificial restorations. A study of the tissues in the mouth, the forms of teeth, their occlusion and their preparation as abutments for the reception of crowns and other forms of attachment used in fixed bridgework. Laboratory technique in the construction of metallic crowns, combination metal and porcelain crowns, inlays, hoods and other forms of attachment for fixed bridgework, including the utilization of various forms of artificial porcelain teeth. Laboratory procedure for completion of constructions of fixed bridgework on models.

Crown and bridgework 103-104. Fourth year. 1 hour lecture and 1 hour recitation, 8 to 10 hours infirmary and laboratory per week each Session. Credit X. 4 points each Session. Professor PEESO and assistants

A study of the principles in the construction and application of fixed and removable bridge-work, and of the advantages of the latter, including the consideration of supplemental saddle support in addition to that obtained from abutments. Advanced study of the principles of occlusion and the causation of periodontal disturbances and other pathologic conditions in connection with bridgework. Laboratory technique of construction of the *simpler forms* of removable bridgework with various types of attachments. Infirmary and laboratory practice in the preparation of abutments and constructions of both fixed and removable bridgework in mouths.

Crown and bridgework 105-106. Fifth year. 1 hour lecture per week, Winter Session. 2 hours infirmary and laboratory per week each Session. Credit X. 1 point each Session. Professor PEESO and assistants

Lectures and demonstrations in advanced work will be continued throughout the year. Students will proceed with the construction of practical cases in the infirmary and laboratories in order to perfect themselves in the more difficult and exacting requirements of the advanced type of removable bridgework which requires as preliminary training the work planned for the third and fourth years and is taught only at post-graduate schools of the highest standing.

During the term there will also be given instruction in specially important operative procedures in connection with bridgework, and a continuation and elaboration of the instruction in ceramics. In addition, there will be taken up a study of the applicability of crown and bridgework in cases where malocclusion and other abnormal conditions exist.

Text-book: Peeso's *Crown and Bridgework*.

Operative Dentistry

Operative dentistry 101-102. First year. 1 hour lecture, 1 hour laboratory per week, Winter Session; 1 hour lecture, 3 hours laboratory per week, Spring Session. Credit X when taken in conjunction with Anatomy 101 to which this course is supplementary. Drs. VAN SAUN and BEISER

Lecture, Winter and Spring Sessions, 5-6 p. m., Tuesday

Laboratory, Winter Session, 5-6 p. m., Thursday

Laboratory, Spring Session, 5-6 p. m., Thursday; 9-11 a. m., Friday

Elementary course. Lectures on tooth anatomy and cavity nomenclature. Laboratory work in carving teeth from suitable materials, dissection of natural teeth.

Text-book: Black, *Descriptive Anatomy of Human Teeth*.

Operative dentistry 103-104. Second year. 2 hours lectures per week, Winter Session; 4 hours laboratory per week, Spring Session. Credit X when taken in conjunction with Anatomy 105 to which this course is supplementary. Professor GILLET and Drs. TRACY and CHASE

Lectures, Winter Session, 5-6 p. m., Monday and Friday

Laboratory, Spring Session, 4-6 p. m., Monday; 9-11 a. m., Thursday

Advanced technics, simple cavity preparation and rudiments of root canal technic.

Text-books: Black, *Operative Dentistry*; Davis, *Operative Dentistry*.

Supplementary to Anatomy 105.

Operative dentistry 105-106. Third year. 2 hours lectures per week each Session. 200 hours laboratory and infirmary during year. Credit X. 4 points each Session. Professor GILLET and assistants

Lectures and demonstrations in theory and practice of operative dentistry, advanced technic work, management of filling materials, root canal fillings. Infirmary practice.

Text-books, same as for Operative dentistry 103-104.

Operative dentistry 107-108—Dental anatomy. Third year. 1 hour lecture, 4 hours laboratory per week each Session. Credit X. 2 points each Session. Professor GILLETT and assistants

Bones of the mouth: The maxilla, mandible and teeth; their anatomical relations, together with the muscles, mucus membrane, alveolodental periosteum, glands, ducts, blood and nerve supply. The development of the deciduous and permanent teeth; and their influences upon the vault and arches. The structure of the teeth: Full description of their surfaces; relative position of pulp cavity and canals; the measurement of the teeth and classification. The temporomandibular articulation and occlusion: Congenital and acquired deformities, which prevent normal function.

Text-book: Dewey's *Dental Anatomy*.

Operative dentistry 109-110—Comparative dental anatomy. Third year. 1 hour lecture per week each Session. Credit X. 1 point each Session. Professor GILLETT and assistants

A study of the dental organs or organs of mastication, in the various forms of life, leads to a clearer comprehension of the necessary care and repair of these organs in the human race.

This course will cover comparisons of the Invertebrates; Vertebrates; Fish; Reptiles; Mammals; Apes, and the different races of men. A full demonstration by means of skulls, lantern slides, and other illustrations.

Text-book: Dewey's and Thompson's *Comparative Dental Anatomy*.

Operative dentistry 111-112—Radiography. Fourth year. 1 hour lecture per week, Winter Session. 2 hours laboratory per week each Session. Credit X. 2 points each Session. Professor GILLETT and assistants

History and physical properties of the X-ray in dental practice; a study and demonstration of the various forms of instruments designed to produce the high tension electric current, necessary for exciting the vacuum tube, from which the rays emanate, and an analysis of the many types of tubes, with practical laboratory demonstration of all forms. The dental X-ray laboratory and its requisites. Dental radiographic technic.

Text-book: McCoy's *Dental and Oral Radiography*.

Operative dentistry 113-114.—Fourth year. 1 hour lecture per week, Winter Session; 2 hours lectures per week, Spring Session; 15 hours infirmary per week each Session. Credit 5 points each Session. Professor GILLETT and assistants

Lectures, demonstrations, infirmary practice.

Text-books, same as for Operative dentistry 103-104 and Fischer's *Local Anesthesia*.

Operative dentistry 115—History, ethics, and economics of dentistry. Fourth year. 1 hour lecture per week, Winter Session. Credit X. 1 point. Professor GILLETT and assistants

Operative dentistry 117—Radiography. Fifth year. 1 hour lecture, 1 hour laboratory per week, Winter Session. Credit X. 1 point. Professor GILLETT and assistants

Advanced study in radiographic technic: Posing of subject and bisecting of the rays; development of plates and films; method of producing stereopticon and plastic pictures; the interpretation of radiographs; dangers of the X-rays and method of protection to patient and operator.

Text-book: McCoy's *Dental and Oral Radiography*.

Operative dentistry 119-120. Fifth year. 1 hour lecture per week, Winter Session; 21 hours infirmary per week each Session. Credit X. 8 points Winter Session, 7 points Spring Session. Professor GILLETT and assistants

Lectures on advanced practice and its management, training in clinical practice of the more complex operations.

Text-books, same as for Operative dentistry 113-114.

Oral Hygiene

Oral hygiene 101-102—Preventive dentistry: Oral prophylaxis and hygiene. Third year. 1 hour lecture, 1 hour demonstration and practice per week each Session. Credit X. 1 point each Session. Professor MERRITT and assistants

A course in oral physiology with special reference to the indices of oral and dental normality and abnormality; and to practical measures for the maintenance of relative normality of the oral secretions and membranes, and of the teeth.

Orthodontia

Orthodontia 102. Third year. 1 hour lecture, 2 hours laboratory per week, Spring Session. Credit X. 1 point. Professor YOUNG, Dr. GOUGH and assistant

Historical sketch; nomenclature and definitions; development of deciduous dental arches; transition from deciduous to permanent teeth; the sizes, forms and positions of the teeth in the arches; normal occlusion; the line of occlusion; facial harmony and balance; forces governing normal occlusion; tissues surrounding the teeth; classification of malocclusion (Angle).

Orthodontia 103. Fourth year. 1 hour lecture, 2 hours laboratory per week, Winter Session. Credit X. 2 points. Professor YOUNG, Dr. GOUGH and assistant

Etiology; forces governing malocclusion; when to correct malocclusion; benefits derived by correction; range of age of correction; tissue changes incident to tooth movement; impressions and casts; anchorage and dynamics; principles of treatment of various classes of malocclusion; adjustment of appliances; management of cases; principles of retention; care of the mouth; office records.

Orthodontia 105-106. Fifth year. 1 hour infirmary per week each Session. Credit X. 1 point each Session. Professor YOUNG, Dr. GOUGH and assistant

Further individual infirmary instruction.

Pathology

Pathology 102—General and special pathology, including experimental pathology. Second year. 2½ hours lectures, 9 hours laboratory per week Spring Session. Credit X. 4 points. Professor PAPPENHEIMER, and Drs. LAMBERT, MACKENZIE, and assistants

Lectures, 9-11:30 a. m., Saturday

Laboratory, 10 a. m.-1 p. m., Monday, Wednesday, and Friday

Pathology 106—Gross pathological anatomy and attendance upon autopsies. Second year. 4 hours demonstrations per week, Spring Session. Credit X. 4 points. Professor PAPPENHEIMER and Dr. LAMBERT, and others

Demonstration, 2-4 p. m., Monday; 4-6 p. m., Friday

Pathology 107-108—Dental pathology and histology. Third year. 2 hours lectures and recitations per week each Session; 2 hours laboratory per week, Winter Session. Credit X. 2 points each Session. Professor WAUGH

Review of the disturbances of circulation with special reference to oral and contiguous structures; normal and abnormal oral secretions; deviations from the normal in tooth forms and relationships; dental caries, diseases of the dental pulp, both destructive and constructive with special reference to caution, symptoms, principles of treatment and prognosis in the different stages.

Pathology 109-110—Dental pathology. Fourth year. 1 hour lecture and recitation per week each Session. 2 hours laboratory work per week, Winter Session. Credit X. 2 points each Session. Professor WAUGH

Management of teeth with dead and decomposing pulps; formation and burrowing of pus; diseases of the periodontal membranes and their bearing upon the formation of dento-alveolar abscess, both acute and chronic. Diseases of the periodontal membrane with special reference to the other supporting structures of the teeth. Traumatic occlusion; periodontoclasia.

Pathology 111-112—Dental pathology. Fifth year. 2 hours lectures and recitations per week each Session. Credit X. 2 points each Session. Professor WAUGH

Diseases of the maxillary and communicating sinuses due to dental cause; various forms of stomatitis; facial neuralgia; facial paralysis; diseases of dentition; consideration of the factors which tend to localize dental lesions and those which predispose to metastasis. Principles of interpreting dental X-ray negatives.

Pharmacology

Pharmacology 101-102—Experimental pharmacology. Second year. 1 hour lecture per week, Winter Session; 3 hours classroom, 4 hours laboratory per week, Spring Session. Credit X. 1 point Winter Session, 3 points Spring Session. Professor LIEB

Laboratory, Spring Session, 2-6 p. m., Wednesday

Recitation, Spring Session, 9-10 a. m., Wednesday and Friday

Lecture, Winter Session, 10-11 a. m., Monday

Lecture, Spring Session, 9-10 p. m., Monday

Physiology

Physiology 106—Human physiology. First year. 6 hours classroom, and 3 hours laboratory per week, Spring Session. Credit X. 8 points. Professors LEE, BURTON-OPITZ and WILLIAMS, and Drs. BISHOP, COX, CUTLER, LEBER, and VAN KLEECK

Lecture, 9-10 a. m., Monday, Tuesday, and Wednesday

Recitation, 10 a. m.-12 m., Monday

Demonstration, 12 m.-1 p. m., Monday

Laboratory, 10 a. m.-1 p. m., Wednesday

Physiology 107—Human physiology. Second year. Credit X. 8 points Winter Session. (Continuation of course 106.)

Lecture, 9-10 a. m., Monday, Friday, and Saturday

Recitation, 10 a. m.-12 m., Wednesday

Demonstration, 12 m.-1 p. m., Wednesday

Laboratory, 10 a. m.-1 p. m., Saturday

Practice of Medicine

Practice of medicine 102—Physical diagnosis. Second year. 1½ hours, lectures and clinics at Vanderbilt Clinic and Presbyterian Hospital per week. Spring Session. Credit X. 1 point. Dr. DRAPER

Lectures and clinics, 11:30 a. m.-1 p. m., Saturday

Practice of medicine 104—Physical diagnosis. Second year. 2 hours practical instruction at Vanderbilt Clinic per week, Spring Session. Credit X. 1 point. Drs. DRAPER, WIENER, and KNAPP
Demonstrations, 2-4 p. m., Tuesday

Practice of medicine 106—Clinical pathology. Second year. 4 hours laboratory per week, Spring Session. Credit X. 2 points. Professor VOGEL and Drs. GEYELIN, JESSUP, BURLINGHAM, and BIBB
Laboratory, 11 a. m.-1 p. m., Tuesday; 2-4 p. m., Monday

Systematic instruction in the various chemical, microscopical and bacteriological methods of diagnosis.

Prosthodontia

Prosthodontia 101-102—Principles of prosthetic technic. First year. 1 hour lecture, 3 hours laboratory per week, Winter Session; 1 hour lecture, 6 hours laboratory per week, Spring Session. Credit X when taken in conjunction with Biological chemistry 51 and 102 to which this course is supplementary. Professor VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

Lectures, 5-6 p. m., Tuesday, each Session

Laboratory, 10 a. m.-1 p. m., Saturday, Winter Session

Laboratory, 2-5 p. m., Tuesday and Thursday, Spring Session

Course on the fundamental principles of prosthesis and the study of impression and cast materials, their physical properties and practical demonstrations in their use in taking impression, including the Greene methods, sectional impressions in modelling compound; the assembling of fractured plaster impressions by the dry and wet methods; the preparation of impressions for the cast material; the separation of the impression from the cast, preparation of the cast for the bite plate, taking the bite and mounting upon the articulator or antagonist; selecting from one to three teeth for a technic cast, grinding and adapting them to the cast; designing and waxing the case for vulcanization.

Text-books: Turner's *Prosthetic Dentistry*; Wilson's *Dental Prosthetics*.

See Applied dental physics and metallurgy, p. 25

Prosthodontia 103-104—Prosthetic technic. Second year. 1 hour lecture, 3 hours laboratory per week each Session. Credit X. 1 point each Session. Professor VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

Lectures, 2-3 p. m., Saturday

Laboratory, 3-6 p. m., Saturday

Continued study of impression and cast materials. Flasking, separating and packing case for the vulcanizer. The physical properties of vulcanite are thoroughly demonstrated by a systematic series of experiments, including solid and hollow cubes and wedges, in combined colors designed to produce definite figures. This is an exercise necessary for artistic results in the more advanced work on practical cases later. Methods of finishing vulcanite.

Text-books, same as in the first year.

Prosthodontia 105-106. Third year. 1 hour lecture and 1 hour recitation, 10 hours laboratory per week each Session. Credit X. 4 points each Session. Professor VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

The mouth and its anatomy as related to artificial dentures. The study of occlusion and the possibilities for restorations with the Snow and Gysi articulator or antagonist. Sand molding; making dies and counter-dies; swaging; riming; and finishing gold, platinum, and aluminum plates. Casting of alloyed metals for prosthetic cases. The nomenclature of porcelain teeth, and the method of manufacture.

Text-books: Turner's, Wilson's, and Prothero's *Prosthetic Dentistry*.

Prosthodontia 107-108—Applied dental physics and metallurgy. Third year. 1 hour lecture and 1 hour recitation, 2 to 3 hours demonstrations and practical laboratory per week each Session. Credit X. 2 points each Session. Professors VAN WOERT and PEESO, and Mr. WEINSTEIN

The instruction will consist of lectures, practical demonstrations and experimental and routine laboratory work by students, as follows:

A study of the constitution and methods of testing the chemical, physical, and mechanical properties of cements, plaster, artificial stone, amalgams, vulcanite rubber, waxes, refractory materials for casting and soldering processes, fluxes and other materials and compounds utilized in the various dental processes.

Practical dental metallurgy, including a study of the various metallic elements useful in dentistry; the compounding and preparation of gold alloys, including plate golds, solders, clasp metals, various alloys for the casting process, amalgam alloys, and other metals and alloys for special purposes.

Testing mechanical strength, tenacity and elasticity of metals and alloys, pyrometric determination of melting points, refining and assaying.

A study of the physical and mechanical details of the pressure casting process and its utilization in the various forms of prosthetic restoration.

A study and practical utilization of the various forms of casting apparatus and heating appliances for soldering, autogenous welding and melting of metals and alloys.

On account of the time required to complete the work outlined, it may be necessary to extend the work into the fourth year.

Prosthodontia 109-110. Fourth year. 1 hour lecture and 1 hour recitation per week each Session. Credit X. 2 points each Session. Professor VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

Laboratory and infirmary practice on practical cases, including gold casting for lingual bar and saddle fixtures, a careful study of the many forms of clasps and attachments for the retention of partial dentures. Selecting teeth for partial and full cases; anatomical articulation. Advanced study in soldering, sweating and the use of the blow pipe using gasoline; acetylene illuminating gas, and oxy-hydrogen flame. Porcelain carving and baking for crown; bridge and inlay work. Full dentures of platinum and porcelain, known as continuous gum work. A part of this work will be practical cases for patients in the infirmary.

Prosthodontia 111-112. Fifth year. 1 hour lecture per week each Session. Credit X. 1 point each Session. Professor F. T. VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

Infirmary and laboratory practice to perfect the students in all branches, including surgical prosthesis in congenital or acquired cases. Students will be required to complete technic and practical cases for graduation.

Surgery

Surgery 101-102—Surgical pathology. Second year. 2 hours recitation per week, Winter Session; 4 hours demonstrations and clinics per week, Spring Session. Credit X. 1 point each Session. Dr. CLARKE

Recitation, 11 a. m.—1 p. m., Thursday, Winter Session

Demonstration and clinic, 9-11 a. m., Tuesday; 11 a. m.—1 p. m., Thursday, Spring Session

Surgery 104—Oral surgery. Third year. 1 hour lecture or recitation per week, Spring Session. Credit X. 1 point. Professor DUNNING and assistants

General introduction to the scope and methods of surgery related to the teeth and mouth.

Surgery 105-106—Oral surgery. Fourth year. 1 hour lecture or recitation, 1 hour clinic per week each Session. Credit X. 2 points each Session. Professor DUNNING and assistants

This course covers malformations, injuries, new growths and diseases of jaws and buccal parietes.

Surgery 108—Oral surgery. Fourth year. 1 hour lecture, 1 hour demonstration per week, Spring Session. Credit X. 2 points. Professor DUNNING and assistants

Discussion and demonstrations of the nature and effects of anesthesia. Daily attendance, clinics, practical instruction in surgery, including extractions and anesthesia.

Surgery 109-110—Oral surgery. Fifth year. 1 hour lecture or recitation, 2 hours clinics per week each Session. Credit X. 2 points each Session. Professor DUNNING and assistants

Clinical instruction to small groups in minor surgery of the mouth and local and general anesthesia. Surgical conditions of mouth and jaws. Maxillary sinus.

Surgery 111—Oral surgery. Fifth year. 1 hour practice per week in the technic of anesthesia for dental operations, Winter Session. Credit X. 1 point. Professor DUNNING and assistants

ACADEMIC CALENDAR

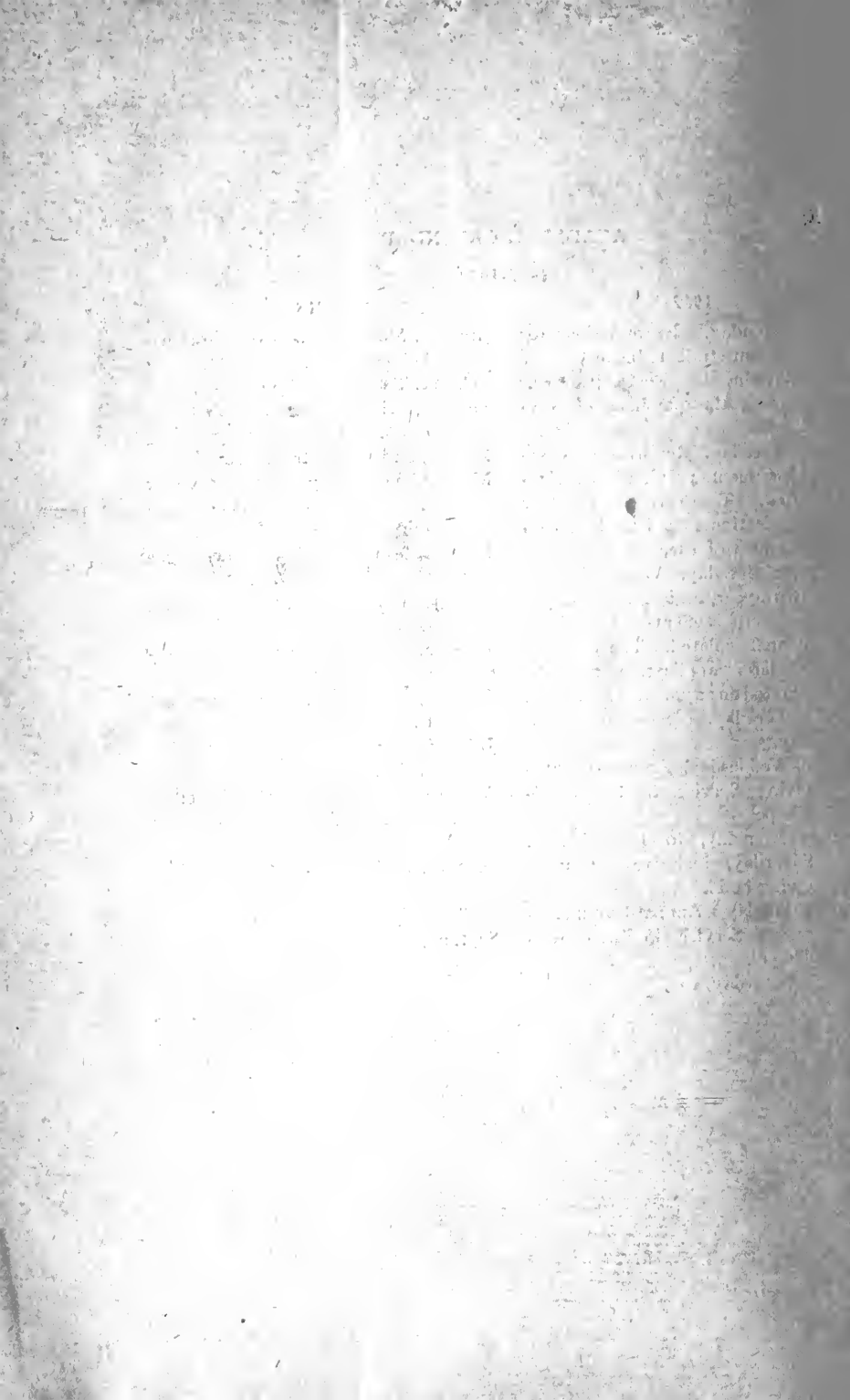
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- Sept. 17, Monday. Examinations for deficient students begin.
- Sept. 19, Wednesday. Registration (including the payment of fees) begins.
- Sept. 25, Tuesday. Registration ceases for students previously matriculated. The privilege of later application may be granted on payment of a fee of \$5.
- Sept. 26, Wednesday. Winter Session, 164th year, begins. Registration ceases for students not previously matriculated. The privilege of later application may be granted on payment of a fee of \$5.
- Nov. 6, Tuesday. Election Day, holiday.
- Nov. 28, Wednesday. Annual Thanksgiving Service in St. Paul's Chapel.
- Nov. 29, Thursday, to December 1, Saturday, inclusive. Thanksgiving holidays.
- Dec. 9, Sunday. Annual Commemoration Service in St. Paul's Chapel.
- Dec. 22, Saturday, to

1918

- Jan. 7, Monday, inclusive. Christmas holidays.
- Feb. 12, Tuesday. Alumni Day.
- Feb. 22, Friday. Washington's Birthday, holiday.
- Mar. 29 and 30, Easter holidays.
- May 1, Wednesday. Last day for filing applications for scholarships.
- May 20, Monday. Final examinations begin.
- May 30, Thursday. Memorial Day, holiday.
- June 2, Sunday. Baccalaureate Service.
- June 5, Wednesday. Commencement Day.
- July 8, Monday. Summer Session begins.
- Aug. 16, Friday. Summer Session ends.
- Sept. 16, Monday. Examinations for deficient students begin.
- Sept. 18, Wednesday. Registration (including the payment of fees) begins.
- Sept. 24, Tuesday. Registration ceases for students previously matriculated.
- Sept. 25, Wednesday. Winter Session, 165th year, begins.





Columbia University Bulletin of Information

SCHOOL OF DENTISTRY

ANNOUNCEMENT

1918-1919

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COLLEGE OF PHYSICIANS AND SURGEONS
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1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, issued in the spring, and relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

U.P.O.-6,000-1918.

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1918-1919**

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GENERAL STATEMENT

In September, 1916, students in dentistry were admitted to courses in Columbia University at the College of Physicians and Surgeons. On March 5, 1917, the Trustees of Columbia University established a School of Dentistry as of September 27, 1916, so that the conduct of courses from that date, as forming part of the work of the School, might be officially recognized.

Dentistry has become an increasingly important factor in the understanding, diagnosis and treatment of diseases which hitherto have been obscure in origin but which are now known to arise from pathological conditions of the mouth and teeth, and can accordingly be controlled and prevented. Recent investigations have shown that rheumatism, anemia, arterio-sclerosis, digestive disorders, diseases of the heart and kidneys, nervous affections, neuralgia, etc., are influenced and are often caused by diseased teeth and neglected mouths.

Dentistry, quite as much as any of the medical specialties, is logically a branch of general medicine, although traditions, which have separated medicine and dentistry and which operate against the public welfare, have prevented due recognition of this fundamental fact.

It is obvious that dentistry cannot render its highest service to the individual, or in the interest of public health, unless dentists are thoroughly educated in the knowledge of general medicine and of dentistry as a medical specialty. Columbia University has provided such a broad special preparation for the practice of dentistry by establishing a School of Dentistry coordinate with the School of Medicine and by establishing a four-year course in dentistry which shall follow the first year of the required course in the School of Medicine.

The courses in the School of Dentistry are based upon the same preliminary requirements as the study of medicine in Columbia University. The entire course requires one year in the School of Medicine followed by four years in the School of Dentistry.

Prospective students should pay particular attention to the new regulations which will go into effect in the fall of 1918 (see p. 9). Women may be admitted to the dental course on the same conditions as to the medical course.

Oral Hygiene

Under the Department of Extension Teaching, Columbia University conducts courses in oral hygiene at the Vanderbilt Clinic and at Morningside Heights. These courses are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least one year of high school work, and the attainment of at least nineteen years of age. Full information may be obtained

by addressing Dr. Albert H. Stevenson or Dr. Lillian Barkann Rosinoff, at the Vanderbilt Clinic, or the Director of Extension Teaching, Morningside Heights.

Advanced Courses in Dentistry

Advanced courses in dentistry for practitioners are offered by the Department of Extension Teaching in the laboratory and infirmary at 35 West 39th Street. These courses cover the subjects of operative and prosthetic dentistry, plate prosthesis, periodontia, and dental ceramics, and vary in length from five to eleven weeks, according to the requirements of the subject. Full information may be obtained from Mr. Louis J. Weinstein, Secretary, 35 West 39th Street, or at the office of the Director of Extension Teaching, Morningside Heights.

Requirements for Admission to the School of Dentistry

Admission—The student must have completed one year of medical study corresponding or equivalent to the first year of the College of Physicians and Surgeons. (For admission to the School of Medicine see p. 9.)

Application—Students should apply in the spring if possible and may use Summer Session courses to make good deficiencies. All applications should be accompanied by the sum of twenty-five cents, to defray the cost of the dental student's certificate, which is required by the laws of the state.

Combined Course—Combined course for the degrees of A.B., and D.D.S. The attention of students of dentistry who propose to enter the Columbia School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and a dental degree in seven or eight years. By permission of the Dean of Columbia College, the first year in the School of Medicine may be elected by students in Columbia College who have maintained a satisfactory grade in their previous work in the College. Such students must have taken at least three years of residence in Columbia College and have secured at least eighty-eight points (out of the 124 required for the A.B. degree) to avail themselves of the one-year professional option in the medical school, and one year in the School of Dentistry. In order to take the eight year 'combined course' and avail themselves of the one-year professional option, students must take ninety-four points out of the 124 required in Columbia College before entering the College of Physicians and Surgeons. The School of Medicine requires that physics, inorganic chemistry, organic chemistry, qualitative analysis, and biology must be included in the eighty-eight or ninety-four points taken in Columbia College. This permits a student to obtain by excellence of work the degree of Bachelor of Arts and that of Doctor of Dental Surgery in seven or eight years, according to whether he offers one year of medical training and one year of dental study, or simply one year of the medical school for part of the scientific training entitling him to his bachelor's degree. Students desiring to effect this combination of courses should address the Secretary of Columbia University for more complete information.

Combined courses with other universities—The University of Rochester, Colgate University, and Hobart and Ripon Colleges, will confer the bachelor's degree upon

students who have elected and successfully completed the first year in the College of Physicians and Surgeons in lieu of the senior year in those colleges.

Requirements in the sciences—Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General inorganic chemistry, including laboratory work, *Chemistry 3c-4c or 6c-7c*, *organic chemistry*, and *qualitative analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Requirements for Admission to Advanced Standing

Admission to advanced standing—In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. *It is essential that students offering themselves for admission to advanced standing should have had before admission all the preliminary work presented in the curriculum of the School of Dentistry.*

Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their schools of previous residence.

Admission of special students—Graduates in dentistry or students who desire to pursue a special course without graduation may register as special students, after approval by the head of the department conducting the course. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of Doctor of Dental Surgery.

Requirements for graduation—In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

Graduate instruction—An increasing number of advanced courses is being opened to graduates in dentistry. These now include courses in bacteriology, biological chemistry, dermatology and syphilology, diseases of children, laryngology and otology, neurology, pathology, physiology, practice of dental medicine, oral

surgery, therapeutics, and anesthesia. Those who wish such opportunities for study are referred to the departmental statements (p. 41) in the Announcement of the School of Medicine.

Summer Session—July 8 to August 16, 1918. Courses in medicine in the Summer Session are open to all properly qualified students without examination. They will count toward the degree of Doctor of Dental Surgery for those who have been admitted to the School of Dentistry, or those who, being eligible for admission to advanced standing, shall subsequently matriculate, especially for those who are candidates for advanced standing, and are deficient in any of the subjects offered. Courses in the Summer Session cannot be accepted from students prior to matriculation in the School of Dentistry except to fulfill deficiencies in their work. Such courses cannot be offered to anticipate work required from students of equal rank except by students already entered in the School.

Attention is called to summer courses in biochemistry, chemistry, nutrition, physics, physiology, psychology, and zoology. For full particulars concerning these courses, and an announcement of the Summer Session, address the Secretary of Columbia University, New York, N. Y.

Changes in Requirements for Admission to the College of Physicians and Surgeons beginning with the Opening of the Winter Session in September, 1918

The minimum requirements for admission to the first year will comprise two years of college work aggregating seventy-two points, as rated at present in Columbia College. This work must include one year of physics, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative chemical analysis, one-half year of organic chemistry, one year of biology, two years of college English, and the equivalent in either French or German of courses A and B as prescribed by Columbia College. The preparation in physics, chemistry, and biology, which will be required for admission, is represented by the following courses in Columbia College:

Physics A1-A2—General elementary physics. Three lectures and two hours' laboratory work a week for one year.

Chemistry 3-4—General inorganic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 11—Qualitative analysis. Two lectures and six hours' laboratory work a week for one-half year.

Chemistry 41—Organic chemistry. Three lectures and six hours' laboratory work a week for one-half year.

Zoology 1-2—Elementary biology and zoology. Two lectures and four hours' laboratory work a week for one year.

While the above courses represent the minimum requirements for admission to the first year, it is highly recommended that, if possible, the college work include three, instead of two, years, so as to allow a more thorough preparation in physics, chemistry, and biology. Such a three-year course, as offered by Columbia College, includes among other studies the courses in the basal sciences indicated below. Although this combination of courses is given in Columbia, it is not essential that other colleges should adhere to this curriculum, except in so

far as the minimum just given above is concerned. Other advanced work in the preliminary sciences would undoubtedly fit the student for his medical work in a most satisfactory manner.

Mathematics 1—Algebra. Three hours a week for one-half year.

Mathematics 4—Analytical geometry. Three hours a week for one-half year.

Mathematics 15-16—Differential and integral calculus. Three hours a week for one year.

Physics 2—Mechanics and wave motion. Three lectures and one recitation a week for one-half year.

Physics 3—Heat and light. Three lectures and one recitation a week for one-half year.

Physics 4—Electricity. Three lectures and one recitation a week for one-half year.

Physics 41-42—Physical laboratory. Four hours a week for one year.

Chemistry 3-4—General inorganic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 11—Qualitative analysis. Two lectures and six hours' laboratory work a week for one-half year.

Chemistry 66—Quantitative analysis. One lecture and six hours' laboratory work a week for one-half year.

Chemistry 41-42—Organic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 22—Physical chemistry. Three lectures a week for one-half year.

Zoology 1-2—Elementary biology and zoology. Two lectures and four hours' laboratory work a week for one year.

Zoology 91-92—General zoology. Two lectures and six hours' laboratory work a week for one year.

After September, 1920, the School of Medicine will admit 'combined course' students from other institutions to advanced standing upon the conditions, first, that they have fulfilled the educational requirement of the classes in the college to which they ask admission, especially as to this pre-medical equivalent of seventy-two points in Columbia College, and, second, that they have received a bachelor's degree for this work prior to their admission to the School of Medicine.

Columbia University will give the degree of Bachelor of Science in Dentistry to every student entering the College of Physicians and Surgeons on this standard, upon the completion of the first year in the Medical School and the first year in the School of Dentistry. Those students who elect the 'combined course' in Columbia University will receive the degree of A.B. upon the nomination of Columbia College.

Registration

The academic year of 1918-1919 begins Wednesday, September 25, 1918, and continues until June 4, 1919. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September.

No student is permitted to attend any academic exercise until he has complied with the regulations in regard to registration and fees. Every student will be required to register personally in the Assistant Registrar's office, 437 West Fifty-ninth Street, on a blank provided for the purpose.

Students are requested, in case of withdrawal during the academic year, to notify the Assistant Registrar in writing without delay, as no application for return of fees will be considered if this requirement has been omitted.

Letters requesting more detailed information than is contained in this Announcement, and all correspondence regarding admission, should be addressed to the Chairman of the Administrative Board, 301 University Hall.

Fees

Drafts and checks should be drawn for the exact amount to the order of Columbia University, as no change will be returned to students on checks.

All fees are payable semi-annually in advance. Registration will not be complete until such fees are paid. Payment of fees after the last day of registration imposes automatically the statutory charge of \$5 for this privilege. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

Summary of Fees

- (a) University fee:
For all students for each Session or any part thereof \$5
- (b) Tuition fee:
For all students per point, except in cases where a special fee is fixed
for a particular course 6
- (c) For a degree or a certificate, or for an examination therefor:
For any professional or technical degree or certificate, including the
degree of D.D.S. in the School of Dentistry 25
- (d) Privileges:
 - 1. Late registration or application 5
 - 2. Deficiency and special examinations 5
 - With a maximum fee for examinations in a single series of 25

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President. (See *Administrative Procedure* following.)
- (e) Rebates:
 - 1. The University fee and the degree fee are not subject to rebate.
 - 2. After the last day of the period provided for change of course, as announced in the academic calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar.

Administrative Procedure

Late registration: For the ultimate date for the completion of registration without the payment of the additional fee, see the academic calendar (p. 24).

Late application: For the ultimate date for filing an application for admission, or for a deficiency or special examination, or for a degree, without the payment of the additional fee, see the academic calendar (p. 24).

Deposits—A deposit of \$15 will be required in the first year to cover material and breakage in the laboratories of anatomy, biological chemistry, and physiology.

Fees for repeated courses—Students obliged to repeat the work of any year are required to pay a tuition fee of \$6 per point for each subject repeated.

Expenses of Students

The following estimate of the probable annual expenses of a candidate for a degree in the School of Dentistry is based on the statements of students:

	<i>Low</i>	<i>Average</i>	<i>Liberal</i>
University fee (each year)	\$10	\$10	\$10
Tuition (\$6 per point)	198	200	205
Books	20	28	35
Laboratory charges (first year)	15	15	15
Room (37 weeks)	93	130	180 up
Board (37 weeks)	148	185	233 up
Clothes and laundry	75	100	125 up
College incidentals	16	21	24 up
Other expenses	46	74	98 up
Graduation fee (last year)	25	25	25 up
<i>Total</i>	<i>\$634</i>	<i>\$828</i>	<i>\$997</i>
Instruments and equipment (total for five-year course)	100	200	300

PLAN OF INSTRUCTION

First Year

(This corresponds to the second year of the School of Medicine)

Anatomy 105. 3 hours lectures, 12 hours laboratory and dissections per week. 8 points Winter Session

Anatomy 215. Neuro-anatomy. 5 hours per week. 3 points Winter Session

Bacteriology 101-102. 5 hours laboratory per week. 2 points each Session

Bacteriology 205. Immunity. 2 hours lectures with demonstrations per week. 2 points Winter Session

Operative dentistry 101-102. Dental anatomy. 1 hour lecture, 4 hours laboratory per week. 3 points each Session

Prosthodontia 101-102. 2 hours lectures and recitations, 10 hours laboratory per week. 6 points each Session

Prosthodontia 107-108. Applied dental physics and metallurgy. 1 hour lecture and recitation, 2 hours demonstrations per week each Session. 2 points each Session.

The number of hours indicated above forms the minimum requirement. This will be amplified by two or three hundred hours devoted to collateral instruction.

Second Year

(This corresponds to the third year of the School of Medicine)

Practice of Medicine 106. Clinical pathology. 4 hours per week. 2 points Spring Session

Surgery 101-102. Surgical pathology. 2 hours per week; 1 point Winter Session. 4 hours per week; 2 points Spring Session

Dental pathology 107-108. Histology. 2 hours lectures and recitations per week each Session. 2 hours laboratory per week Winter Session. 3 points Winter Session. 2 points Spring Session

Metallurgy. See Prosthodontia 107-108. First year

Operative dentistry 103-104. 2 hours lectures, 5 hours laboratory and infirmary per week. 4 points each Session

Prosthodontia 103-104. 1 hour lecture and recitation, 9 hours laboratory per week. 3 points each Session

Pharmacology and materia medica 101-102. Experimental pharmacology. 1 hour lecture per week, Winter Session. 3 hours lectures and recitations, and 4 hours laboratory per week, Spring Session. 1 point Winter Session, 3 points Spring Session

Pathology 102-106. General and special pathology. 12 hours lectures and laboratory per week. Gross pathological anatomy and attendance upon autopsies. 4½ hours demonstrations per week. 4 points each Session

The number of hours indicated above forms the minimum requirement. This will be amplified by two or three hundred hours devoted to collateral instruction.

Third Year

(This corresponds to the fourth year of the School of Medicine)

Pathology 109-110. Dental pathology. 1 hour lecture and recitation per week each Session. 2 hours laboratory per week, Winter Session. 2 points each Session

Practice of medicine 102. Elementary medical clinic, 1½ hours lectures and clinics per week. Physical diagnosis, 2 hours practical instruction per week. 2 points Spring Session

Operative dentistry—

(a) **105-106. Operative dentistry.** 1 hour lecture. 6 hours laboratory per week. 2 points each Session

(b) **107-108. Dental anatomy. Comparative dental anatomy.** 1 hour lecture per week. 1 point each Session

(c) **111-112. Radiology.** 1 hour lecture and laboratory per week. 1 point each Session

Prosthodontia 105-106. 1½ hours lectures and recitations and 6 hours laboratory per week. 4 points each Session

Bacteriology. 1 hour lecture, 1 hour laboratory. 1 point each Session

Orthodontia 102. 1 hour lecture and 1 hour laboratory per week. 1 point Spring Session

Oral hygiene and prophylaxis 102. Preventive dentistry. 1 hour lecture, 6 hours laboratory. 3 points Spring Session

Crown and bridgework 103-104. 2 hours lectures and recitations. 8 hours infirmary and laboratory per week. 3 points each Session

Fourth Year

(This corresponds to the fifth year of the School of Medicine)

Pathology 111-112. Dental pathology. 3 hours lectures and recitations per week. 2 points each Session

Dental therapeutics and materia medica. 2 hours lectures per week. 1 point Winter Session

Operative dentistry—

(a) **113-114.** 2 hours lectures, 12 hours infirmary per week. 4 points each Session

(b) **119-120.** 14 hours infirmary. 4 points each Session

Prosthodontia 109-110. 1 hour lecture and recitation, 5½ hours laboratory. 2 points each Session

Surgery 109-110. Oral Surgery. 2 hours lectures and recitations, 2 hours clinic per week. 2 points each Session

Orthodontia 105-106. 2½ hours infirmary per week. 1 point each Session

Oral Hygiene 104. Oral hygiene and prophylaxis. 2 hours laboratory per week supplemented by 5 lectures. 1 point Spring Session

Oral Surgery 105-106. 2 hours lectures and recitations, 2 hours laboratory per week. 2 points each Session

Oral Surgery 108. 1 hour lecture and 1 hour demonstration per week. 1 point Spring Session

History, ethics, economics, and jurisprudence of dentistry. 1 hour lecture per week. 1 point Winter Session

The number of hours indicated above forms the minimum requirement. This will be amplified by two or three hundred hours devoted to collateral instruction.

Examinations and Standing

Examinations are held in January and at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See fall examination calendar.)

No student will be recommended for the degree of D.D.S. until he shall have completed all the required practical work and passed satisfactory examinations in all the subjects of the entire five years' course.

The standing which regulates a student's advancement to the work of the succeeding year is determined as follows:

An unsatisfactory record of practical work in any subject may bar a student from examination, the result being failure in the year's work in that subject. By a satisfactory record in practical work is meant a record of punctual attendance, unless prevented by illness or unavoidable causes, on the practical courses. These courses can be taken only during the year to which they belong, so that they cannot be made up at a later time, except in those cases where provision is made in the Summer Session.

Conditions for Advancement

1. A student is not allowed to go on with his class who has failed in any one of his courses, until he has removed that failure to the satisfaction of the head of the department involved.

2. A student who has failed in two or more of his courses at the end of any academic year is automatically dropped from the school and can neither go on with his class nor be given an opportunity to pass off the failures, nor repeat the year.

3. A student who has failed in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.

4. No student is allowed to take more than six years in which to complete the professional work for his degree. He may repeat only one year during his course.

5. A student who has failed in one course and repeated the entire year in which the course was given is automatically dropped from the school, if he in a subsequent year fails in one of his courses and does not succeed in passing it off in the fall.

Libraries

The libraries of the College of Physicians and Surgeons consist of a general reference library with reading room, and the special libraries of various departments. The general reference library is located on the first floor of the main building. It is open during the day and is freely accessible to all students. It contains 7,500 volumes and 8,000 pamphlets, which include a collection of current text-books and monographs and the most important current medical and dental journals. The books are classified according to the classification of the Library of Congress, and are catalogued with author, subject, and title entries. The catalogue will eventually become a union catalogue of all books in the different libraries of the College. Books are loaned out over night for the convenience of students who wish to study at home. The special libraries are located in the rooms of the various departments. They consist largely of periodical literature, but include many monographs and other books relating to the subjects of the respective departments. They are of special interest to the investigators in these departments, but may be used by other students upon special request.

The library is open on week days from 9 a. m. to 5 p. m. and on Saturdays from 9 a. m. to 1 p. m.

More than three hundred periodicals are received in the several libraries of the College. The number of volumes and pamphlets is as follows:

Anatomy	1,700 Volumes	2,000 Pamphlets
Biological Chemistry	2,800 Volumes	8,000 Pamphlets
Pathology	5,700 Volumes	2,000 Pamphlets
Physiology	8,000 Volumes	9,500 Pamphlets
Practice of Medicine (Janeway Library at the Presbyterian Hospital)	3,000 Volumes	3,300 Pamphlets
Reference Library	7,500 Volumes	8,000 Pamphlets
Pharmacology	450 Volumes	
Surgery, Hartley and Blake Libraries (at the Presbyterian Hospital)	1,000 Volumes	1,000 Pamphlets
<i>Total</i>	<i>30,150 Volumes</i>	<i>33,800 Pamphlets</i>

University Privileges

As the School of Dentistry is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of any department of the University. Students who can spare the time, and who are qualified by their previous training, may pursue courses of study and research in any department of the University. They may reside in the University dormitories at Morningside Heights, and are eligible to membership in the various social and other organizations of the student body.

University Libraries—The libraries on Morningside Heights are open to all students of dentistry, and books may be borrowed for home use. They include collections on anatomy, biochemistry, public health, nursing and other subjects related to medicine and dental science, and supplement the special collections available in the College of Physicians and Surgeons and in the New York Academy of Medicine, 17 West 43d Street. The library of the College of Pharmacy, 115 West 68th Street, is also open to students in the School of Dentistry.

Residence Halls—Hartley and Livingston Halls (for men), and Furnald Hall (for women) on South Field, are open for the accommodation of students in the School of Dentistry.

A pamphlet containing floor plans of the residence halls and indicating the charge for each room will be mailed upon application to the Secretary of the University.

License to Practise Dentistry in New York State

Those desiring to take the New York State Board examinations are advised to address Mr. H. H. Horner, Chief of Examination Division, New York State Education Department, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

Examinations—The examinations are conducted by the Department and answer papers are read and marked by the board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

Schedule of examinations for license to practise dentistry from 1918 to 1920:

<i>Year</i>	<i>1918</i>	<i>1919</i>	<i>1920</i>
Winter	Jan. 29-Feb. 1	Jan. 28-31	Jan. 27-30
Spring	May 21-24	May 20-23	May 18-21
Summer	June 25-28	June 24-27	June 29-July 2
Autumn	Sept. 24-27	Sept. 16-19	Oct. 5-8

Departmental Statements

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences arranged with the object of correlating such new material with that of the standard text-books.

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candi-

dates for the degree of D.D.S.; to candidates for the degree of A.B. in Columbia College, and to candidates for the degree of A.M. or Ph.D. and to graduates in dentistry and medicine.

Anatomy

Anatomy 105—Anatomy of head, abdomen and thorax; neuro-anatomy. First year. 3 hours lectures, 12 hours laboratory and dissections per week. 8 points Winter Session. Professor HUNTINGTON and Drs. VAUGHAN and GALLAUDET

Lectures, 9-10 a. m., Tuesday, Wednesday, and Thursday

Laboratory, 2-6 p. m., Monday, Wednesday, and Friday.

Anatomy 215. Neuro-anatomy. First year. Lectures, demonstrations, and laboratory work. 5 hours per week. 3 points Winter Session. Professor TILNEY and Drs. STRONG and MCKENDREE.

Bacteriology

Bacteriology 101-102—General bacteriology. First year. 5 hours laboratory per week. 2 points each Session. Professor ZINSSER and Dr. DWYER
Laboratory, 10 a. m.-1 p. m., Tuesday and Friday

Bacteriology 205—Immunity. First year. 2 hours lectures with demonstrations per week. 2 points Winter Session. Professor ZINSSER

Lecture, 5-6 p. m., Tuesday and Thursday

Course on the principles of infection, immunity, serum diagnosis, and therapy.

Bacteriology D200. Dental bacteriology. Third year. 1 hour lecture with demonstration. 1 hour laboratory. 1 point Spring Session

Crown and Bridgework

Crown and bridgework 103-104. Third year. 2 hours lectures and recitations, 8 hours laboratory per week. 3 points each Session. Professor PEESO and assistants

A study of the principles in the construction and application of fixed and removable bridgework, and of the advantages of the latter, including the consideration of supplemental saddle support in addition to that obtained from abutments. Advanced study of the principles of occlusion and the causation of periodontal disturbances and other pathologic conditions in connection with bridgework. Laboratory technique of construction of the *simpler forms* of removable bridgework with various types of attachments. Infirmary and laboratory practice in the preparation of abutments and constructions of both fixed and removable bridgework in mouths.

Text-book: Peeso's *Crown and Bridgework*.

Operative Dentistry

Operative dentistry 101-102. Dental anatomy. First year. 1 hour lecture, 4 hours laboratory per week. 3 points each Session. Assistant Professor VAN SAUN and Dr. BEISER

Elementary course. Lectures on dental anatomy of deciduous and permanent teeth. Development of the jaws and teeth. Bones of the mouth, their anatomical relations with muscles, nerves, blood and lymph vessels, glands, and intervening tissues. The structure of the teeth: Full description of their surfaces; relative position of pulp chambers and canals. The temporomandibular articulation; occlusion; articulation. Congenital and acquired deformities. Laboratory work in carving teeth, filing and sawing sections of teeth, preparation of cavities in models and natural teeth, root canal technics, fillings.

Operative dentistry 103-104. Second year. 2 hours lectures per week. 5 hours laboratory and infirmary per week. 4 points each Session. Professor GILLET and Assistant Professors TRACY, CHASE, Dr. SHERER, and assistant

Detailed study of the procedures of Operative Dentistry.

Review of cavity nomenclature, study of cutting instruments, dental engine, instrument grasps, chair positions, use of rubber dam, and related appliances. Review of tooth histology, cavity preparation, excavation of cavities by classes, interproximal relations, abrasions. Physical properties of filling material, their behavior under the practical conditions of dental procedure, stress of mouth conditions.

Filling with gold, amalgam, cement, and gutta percha, pulp exposures, pulp removal, root canal cleaning, and filling.

Text-book: Black's *Operative Dentistry*.

Operative dentistry 105-106—Dental anatomy. Third year. 1 hour lecture, 6 hours laboratory per week. 2 points each Session. Professor GILLET and Assistant Professors TRACY, CHASE, Dr. SHERER and Dr. ZASTROW

Lectures and demonstrations in theory and practice of operative dentistry, consideration of atrophy, erosion, caries, relation of systematic conditions to mouth conditions, management of patients, the force used in mastication, examinations of the mouth, treatment of dental caries, management of cavities by classes, management of children's teeth. Further study and practice in root canal management and filling.

Study of porcelain and gold inlays and details of the procedures involved in their use.

Text-book: Black's *Operative Dentistry*.

Operative dentistry 107-108—Comparative dental anatomy. Third year. 1 hour lecture per week. 1 point each Session. Assistant Professor VAN SAUN

A study of the dental organs or organs of mastication, in the various forms of life, leads to a clearer comprehension of the necessary care and repair of these organs in the human race.

This course will cover comparisons of the Invertebrates; Vertebrates; Pisces; Reptiles; Mammals; Apes, and the different races of men. A full demonstration by means of skulls, lantern slides, and other illustrations.

Text-book: Dewey's and Thompson's *Comparative Dental Anatomy*.

Operative dentistry 111-112—Radiology. Third year. 1 hour lecture and laboratory per week. 1 point each Session. Dr. C. T. VAN WOERT

History and physical properties of the X-ray in dental practice; a study and demonstration of the various forms of instruments designed to produce the high tension electric current, necessary for exciting the vacuum tube, from which the rays emanate, and an analysis of the many types of tubes, with practical laboratory demonstration of all forms. The dental X-ray laboratory and its requisites. Dental radiographic technic.

Text-book: McCoy's *Dental and Oral Radiography*.

Operative dentistry 113-114. Fourth year. 2 hours lectures. 12 hours infirmary. 4 points each Session. Professor GILLET and Assistant Professors TRACY, CHASE, Dr. SHERER and assistants.

Lectures, demonstrations, infirmary practice.

Text-books, same as for Operative dentistry 103-104 and Fischer's *Local Anesthesia*.

Operative dentistry 115—History, ethics, and economics of dentistry. Fourth year. 1 hour lecture per week. 1 point Winter Session. Professor GILLET and assistants

Operative dentistry 119-120. Fourth year. 14 hours infirmary per week. 4 points each Session. Professor GILLET and Assistant Professors TRACY, CHASE, Dr. SHERER, and assistants.

Training in advanced practice and its management, and clinical practice in the more complex operations in root canal filling, gold inlay work as related to bridge work, considerations of the

relations of direct and indirect systems for inlays, and comparative value of different filling materials.

Text-books, same as for Operative dentistry 113-114.

Oral Hygiene

Oral hygiene 102—Preventive dentistry: Oral hygiene and prophylaxis.

Third year. 1 hour lecture, 6 hours demonstration and practice per week. 3 points Spring Session. Professor MERRITT and assistants

A course in oral physiology with special reference to the indices of oral and dental normality and abnormality; and to practical measures for the maintenance of relative normality of the oral secretions and membranes, and of the teeth.

Oral hygiene 104: Oral hygiene and prophylaxis. Fourth year. 2 hours laboratory supplemented by 5 lectures. 1 point Spring Session. Professor MERRITT and assistants

Orthodontia

Orthodontia 102. Third year. 1 hour lecture, 1 hour laboratory per week. 1 point Spring Session. Professor YOUNG, Dr. GOUGH and assistant

Historical sketch; nomenclature and definitions; development of deciduous dental arches, transition from deciduous to permanent teeth; the sizes, forms and positions of the teeth in the arches; normal occlusion; the line of occlusion; facial harmony and balance; forces governing normal occlusion; tissues surrounding the teeth; classification of malocclusion (Angle).

Orthodontia 105-106. Fourth year. 2½ hours infirmary per week. 1 point each Session. Professor YOUNG, Dr. GOUGH and assistant

Further individual infirmary instruction.

Pathology

Pathology 102—General and special pathology, including experimental pathology. Second year. 2 hours lectures and laboratory per week. 4 points Spring Session. Professor JOBLING and Dr. EGGSTEIN

Lectures, 9-12 a. m., Saturday

Laboratory, 10 a. m.-1 p. m., Monday, Wednesday, and Friday

Pathology 106—Gross pathological anatomy and attendance upon autopsies. Second year. 4½ hours demonstrations per week. 4 points Spring Session. Professor JOBLING and Dr. EGGSTEIN

Demonstration. 2-4:30 p. m., Monday; 4-6 p. m., Friday

Dental pathology, 107-108. Histology. Second year. 2 hours lectures and recitations per week each Session; 2 hours laboratory per week, Winter Session. 3 points Winter Session, 2 points Spring Session. Professor WAUGH

Review of the disturbances of circulation with special reference to oral and contiguous structures; normal and abnormal oral secretions; deviations from the normal in tooth forms and relationships; dental caries, diseases of the dental pulp, both destructive and constructive with special reference to caution, symptoms, principles of treatment and prognosis in the different stages.

Pathology 109-110—Dental pathology. Third year. 1 hour lecture and recitation per week each Session. 2 hours laboratory work per week, Winter Session. 2 points each Session. Professor WAUGH

Management of teeth with dead and decomposing pulps; formation and burrowing of pus diseases of the periodontal membranes and their bearing upon the formation of dento-alveolar abscess, both acute and chronic. Diseases of the periodontal membrane with special reference to the other supporting structures of the teeth. Traumatic occlusion; periodontoclasia.

Pathology 111-112—Dental pathology. Fourth year. 3 hours lectures and recitations per week. 2 points each Session. Professor WAUGH

Diseases of the maxillary and communicating sinuses due to dental cause; various forms of stomatitis; facial neuralgia; facial paralysis; diseases of dentition; consideration of the factors which tend to localize dental lesions and those which predispose to metastasis. Principles of interpreting dental X-ray negatives.

Pharmacology

Pharmacology 101-102—Experimental pharmacology. Second year. 1 hour lecture per week, Winter Session; 3 hours classroom, 4 hours laboratory per week, Spring Session. 1 point Winter Session, 3 points Spring Session. Professor LIEB

Laboratory, Spring Session, 2-6 p. m., Wednesday

Recitation, Spring Session, 9-10 a. m., Wednesday and Friday

Lecture, Winter Session, 10-11 a. m., Monday

Lecture, Spring Session, 9-10 p. m., Monday

Pharmacology 103. Dental therapeutics and materia medica. Fourth year. 2 hours lectures per week. 1 point Winter Session.

Practice of Medicine

Practice of medicine 102—Physical diagnosis. Third year. 1½ hours lectures and clinics at Vanderbilt Clinic and Presbyterian Hospital per week. 2 points Spring Session. Dr. HOWE

Lectures and clinics, 11:30 a. m.-1 p. m., Saturday. Demonstration 2-4 p. m., Tuesday

Practice of medicine 106—Clinical pathology. Second year. 4 hours laboratory per week. 2 points Spring Session. Professor VOGEL and Drs. GEYELIN and JESSUP

Laboratory, 11 a. m.-1 p. m., Tuesday; 2-4 p. m., Monday

Systematic instruction in the various chemical, microscopical and bacteriological methods of diagnosis.

Prosthodontia

Prosthodontia 101-102—Principles of prosthetic technic. First year. 2 hours lectures, 10 hours laboratory per week. 6 points each Session. Professor VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

Lectures, 5-6 p. m., Wednesday and Friday, each Session

Laboratory, 10 a. m.-1 p. m., Saturday

Laboratory, 5 p. m., Monday and Thursday

Course on the fundamental principles of prosthesis and the study of impression and cast materials, their physical properties and practical demonstrations in their use in taking impression, including

the Greene methods, sectional impressions in modelling compound; the assembling of fractured plaster impressions by the dry and wet methods; the preparation of impressions for the cast material; the separation of the impression from the cast, preparation of the cast for the bite plate, taking the bite and mounting upon the articulator or antagonist; selecting from one to three teeth for a technic case, grinding and adapting them to the cast; designing and waxing the case for vulcanization.

Text-books: Turner's *Prosthetic Dentistry*.

See Applied dental physics and metallurgy below.

Prosthodontia 103-104—Prosthetic technic. Second year. 1 hour lecture, 9 hours laboratory per week. 3 points each Session. Professor VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

Lectures, 2-3 p. m., Saturday

Laboratory, 3-6 p. m., Saturday

Continued study of impression and cast materials. Flasking, separating and packing case for the vulcanizer. The physical properties of vulcanite are thoroughly demonstrated by a systematic series of experiments, including solid and hollow cubes and wedges, in combined colors designed to produce definite figures. This is an exercise necessary for artistic results in the more advanced work on practical cases later. Methods of finishing vulcanite.

Text-books, same as in the first year.

Prosthodontia 105-106. Third year. 1½ hours lectures and recitations, 6 hours laboratory per week. 4 points each Session. Professor VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

The mouth and its anatomy as related to artificial dentures. The study of occlusion and the possibilities for restorations with the Snow and Gysi articulator or antagonist. Sand molding; making dies and counter-dies; swaging; riming, and finishing gold, platinum, and aluminum plates. Casting of alloyed metals for prosthetic cases. The nomenclature of porcelain teeth, and the method of manufacture.

Text-books: Turner's *Prosthetic Dentistry*.

Prosthodontia 107-108—Applied dental physics and metallurgy. First year. 1 hour lecture and recitation, 2 hours demonstrations and practical laboratory per week. 2 points each Session. Professors VAN WOERT and PEESO, and Mr. WEINSTEIN

The instruction will consist of lectures, practical demonstrations and experimental and routine laboratory work by students, as follows:

A study of the constitution and methods of testing the chemical, physical, and mechanical properties of cements, plaster, artificial stone, amalgams, vulcanite rubber, waxes, refractory materials for casting and soldering processes, fluxes and other materials and compounds utilized in the various dental processes.

Practical dental metallurgy, including a study of the various metallic elements useful in dentistry; the compounding and preparation of gold alloys, including plate golds, solders, clasp metals, various alloys for the casting process, amalgam alloys, and other metals and alloys for special purposes.

Testing mechanical strength, tenacity and elasticity of metals and alloys, pyrometric determination of melting points, refining and assaying.

A study of the physical and mechanical details of the pressure casting process and its utilization in the various forms of prosthetic restoration.

A study and practical utilization of the various forms of casting apparatus and heating appliances for soldering, autogenous welding and melting of metals and alloys.

On account of the time required to complete the work outlined, it may be necessary to extend the work into the fourth year.

Prosthodontia 109-110. Fourth year. 1 hour lecture and recitation per week. 5½ hours laboratory. 2 points each Session. Professor VAN WOERT and Drs. RUYL, C. T. VAN WOERT, and assistants

Laboratory and infirmary practice on practical cases, including gold casting for lingual bar and saddle fixtures, a careful study of the many forms of clasps and attachments for the retention of partial dentures. Selecting teeth for partial and full cases; anatomical articulation. Advanced study in soldering, sweating and the use of the blow pipe, using gasoline; acetylene illuminating gas, and oxy-hydrogen flame. Porcelain carving and baking for crown; bridge and inlay work. Full dentures of platinum and porcelain, known as continuous gum work. A part of this work will be practical cases for patients in the infirmary.

Surgery

Surgery 101-102—Surgical pathology. Second year. 2 hours recitation per week. 1 point Winter Session; 4 hours demonstrations and clinics per week. 2 points, Spring Session. Drs. CLARKE, HOWE, and instructors

Recitation, 11 a. m.—1 p. m., Thursday, Winter Session

Demonstration and clinic, 9–11 a. m., Tuesday; or 11 a. m.—1 p. m., Thursday, Spring Session

Surgery 105-106—Oral surgery. Fourth year. 2 hours lecture and recitations. 2 hours clinic per week. 2 points each Session. Professor DUNNING and assistants

This course covers malformations, injuries, new growths and diseases of jaws and buccal parietes.

Surgery 108—Physical diagnosis and anesthesia. Fourth year. 1 hour lecture, 1 hour demonstration per week. 1 point Spring Session. Professor DUNNING and assistants

Discussion and demonstrations of the nature and effects of anesthesia. Daily attendance, clinics, practical instruction in surgery, including extractions and anesthesia.

Surgery 109-110—Oral surgery. Fourth year. 2 hours lectures and recitations, 2 hours clinics per week. 2 points each Session. Professor DUNNING and assistants

Clinical instruction to small groups in minor surgery of the mouth and local and general anesthesia. Surgical conditions of mouth and jaws. Maxillary sinus.

ACADEMIC CALENDAR 1918-1919

1918

- July 8, Monday. Nineteenth **Summer Session begins.**
- Aug. 1, Thursday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. The privilege of later application may be granted up to August 15 on payment of a fee of \$5. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$5.
- Aug. 16, Friday. Nineteenth **Summer Session ends.**
- Sept. 9, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of later application may be granted on payment of a fee of \$5.
- Sept. 16, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- Sept. 18, Wednesday. **Registration** (including the payment of fees) **begins.**
- Sept. 24, Tuesday. Registration ceases for students previously matriculated except graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$5.
- Sept. 25, Wednesday. **Winter Session, 165th year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$5.
- Sept. 28, Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later application may be granted up to October 19 on payment of a fee of \$5.
- Oct. 1, Tuesday. Last day for filing essay for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for all degrees to be conferred in October, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$5. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Oct. 15, Tuesday. Stated meeting of University Council.
- Oct. 19, Saturday. Last day for receiving late applications for

registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.

Nov. 5, Tuesday. Election Day, holiday.

Nov. 27, Wednesday. **Annual Thanksgiving Service** in St. Paul's Chapel.

Nov. 28, Thursday, to November 30, Saturday, inclusive. Thanksgiving holidays.

Dec. 2, Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February. The privilege of later application may be granted up to December 14 on payment of a fee of \$5.

Dec. 8, Sunday. **Annual Commemoration Service** in St. Paul's Chapel.

Dec. 17, Tuesday. Stated meeting of University Council.

Dec. 23, Monday, to

1919

Jan. 4, Saturday, inclusive. Christmas holidays.

Jan. 9, Thursday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$5.

Jan. 16, Thursday. Mid-year entrance examinations begin.

Jan. 22, Wednesday. Mid-year examinations begin.

Feb. 1, Saturday. **Registration** (including the payment of fees) **begins**. Last day for filing applications for all degrees to

be conferred in February, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$5.

Feb. 4, Tuesday. **Winter Session ends**. Last day for filing essay for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.

Registration ceases for students entering Spring Session. The privilege of later registration may be granted up to March 1 for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts on payment of a fee of \$5.

Feb. 5, Wednesday. **Spring Session begins**.

University Service in St. Paul's Chapel.

Feb. 12, Wednesday. Alumni Day.

Feb. 15, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.

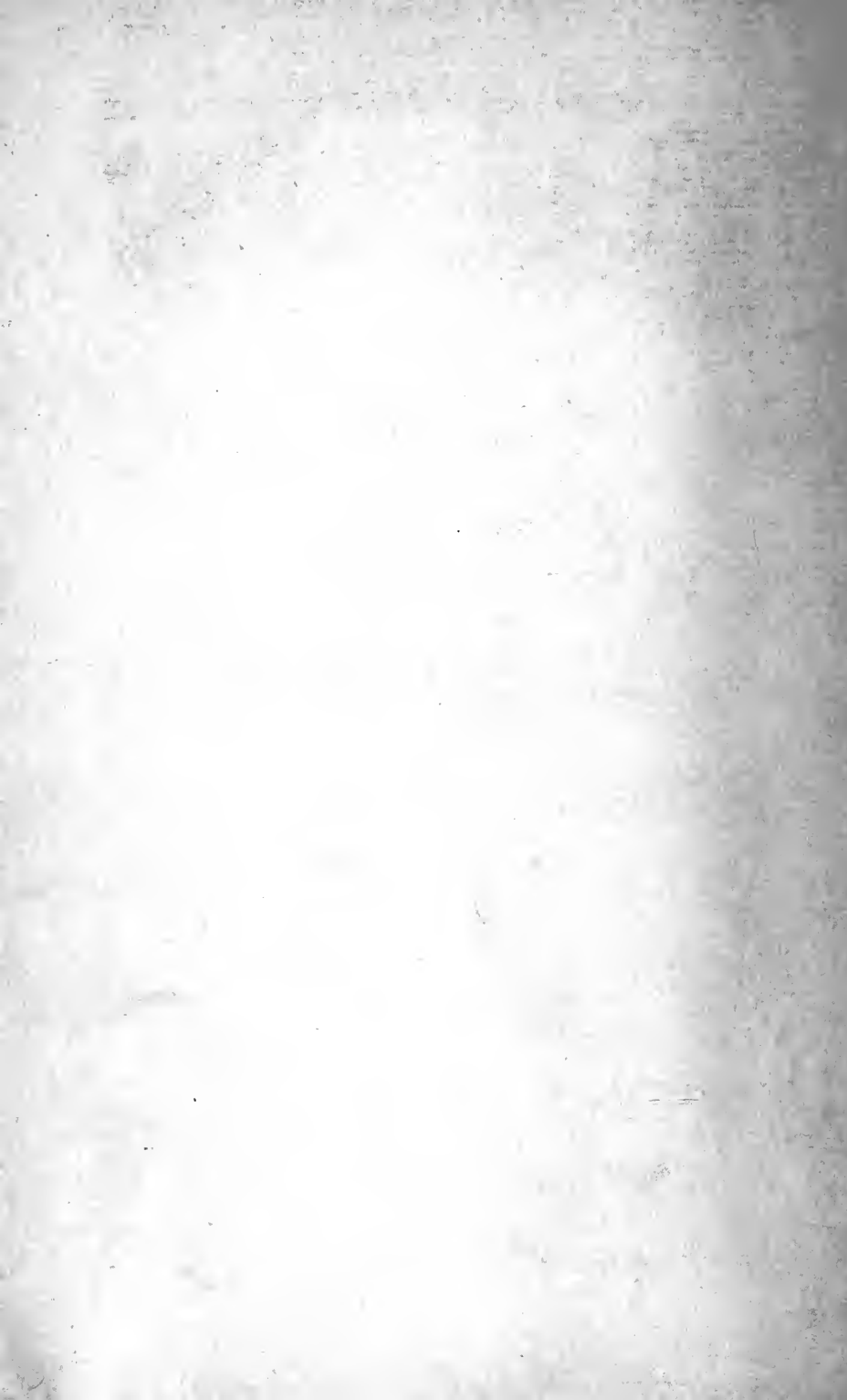
Feb. 18, Tuesday. Stated meeting of University Council.

Feb. 22, Saturday. Washington's Birthday, holiday.

Mar. 1, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Education and Practical Arts. Last day for filing applications for University Fellowships and Scholarships.

- Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June. The privilege of later application may be granted up to March 15 on payment of a fee of \$5.
- Apr. 1, Tuesday. Last day for filing applications for examination for the degree of Doctor of Philosophy to be conferred in June.
- Apr. 15, Tuesday. Stated meeting of University Council.
Last day for filing applications for all degrees to be conferred in June, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$5.
- Apr. 17, Thursday, to April 21, Monday, inclusive. Easter holidays.
- Apr. 21, Monday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$5.
- May 1, Thursday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$5.
Last day for filing applications for scholarships in the Schools of Law, Applied Science, and Architecture.
- May 19, Monday. Final examinations begin.
- May 21, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- May 30, Friday. Memorial Day, holiday.
- June 1, Sunday. **Baccalaureate Service.**
- June 2, Monday. Class Day.
- June 4, Wednesday. **Commencement Day.**
- June 11, Wednesday. **Spring Session ends.**
- June 16, Monday. Entrance examinations begin.
- July 7, Monday. Twentieth **Summer Session begins.**







Columbia University Bulletin of Information

SCHOOL OF DENTISTRY

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ANNOUNCEMENT

1919-1920

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Columbia University Bulletin of Information

Issued thirty-six times during the academic year, monthly in November and weekly between December and July. Entered as second-class matter August 10, 1918, at the Post Office, at New York, New York, under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized.] These include:

1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, issued in the spring, and relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

A.P. 31,000-1919

**OFFICERS OF THE SCHOOL OF DENTISTRY
1919-1920**

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FACULTY AND OFFICERS OF INSTRUCTION

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WILLIAM B. DUNNING, D.D.S.	<i>Operative Dentistry</i>
HENRY W. GILLET, D.M.D.	<i>Theory and Practice of Dentistry</i>
ARTHUR H. MERRITT, D.D.S.	<i>Oral Pathology</i>
FREDERIC A. PEESO, D.D.S.	<i>Crown and Bridge Work</i>
JAMES P. RUYL, D.D.S.	<i>Prosthodontia</i>
WILLIAM D. TRACY, D.D.S.	<i>Operative Dentistry</i>
FRANK T. VAN WOERT, M.D.S.	<i>Clinical Dentistry</i>
LEUMAN M. WAUGH, D.D.S., Secretary of the Faculty, <i>Histology and Embryology</i>	
J. LOWE YOUNG, D.D.S.	<i>Orthodontia</i>

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OSCAR J. CHASE, JR., D.D.S.	<i>Operative Dentistry</i>
ALBERT H. STEVENSON, D.D.S.	<i>Preventive Dentistry</i>
S. W. VAN SAUN, D.D.S.	<i>Operative Dentistry</i>
E. S. ULSAVER, D.D.S.	<i>Prosthetic Dentistry</i>

Instructors

H. EVERETT BEISER, D.D.S.	<i>Operative Dentistry</i>
GEORGE W. GARDNER, D.D.S.	<i>Prosthetic Dentistry</i>
JOHN W. SCHERER, D.D.S.	<i>Operative Dentistry</i>
CLARENCE T. VAN WOERT, D.D.S.	<i>Prosthetic Dentistry</i>
FRANK A. ZASTROW, D.D.S.	<i>Operative Dentistry</i>

GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the corporate title was changed to Columbia University.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws; the College of Physicians and Surgeons, with courses leading to the degrees of Bachelor of Science and Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degree of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dentistry, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts, and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science, and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning the Monday following July 4. Through its system of Extension Teaching, the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree.

ADMISSION

A student may enter Columbia University as:

1. A matriculated student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by all such candidates.

2. A non-matriculated student, permitted to attend such courses of instruction as he may be qualified to take, but not regarded as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree. (For admission to the School of Dentistry, see p. 9.)

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the College of Physicians and Surgeons, 437 West 59th Street; the College of Pharmacy, 115 West 68th Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees to the Bursar. Students registering late are charged an additional fee and are held accountable for the absences thus incurred.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution without the consent of the appropriate Dean or Director. (For registration in the School of Dentistry, see p. 13.)

GRADUATION

Diplomas are issued only at Commencement, and in February and October, upon the completion of the requirements for a degree.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each College or School, of the Summer Session, of Extension Teaching, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

FEES

Each student in the University will be called upon to pay three necessary fees. He will pay each year a University fee, a tuition fee, and, in the year of graduation, a graduation examination fee. The University and tuition fees are payable semi-annually in advance, and no reduction is made for late registration. Under the regulations, the privileges of the University are withheld from any student delinquent in the payment of his fees. The fees to be paid by students are subject to change at any time at the discretion of the Trustees.

The term 'point', upon which tuition fees, except in the School of Law, are based, signifies work requiring attendance equivalent to one hour weekly on lectures or recitations, or a correspondingly longer period in laboratory, drafting-room, or shop. The point value of each course is given in the Announcements of the several schools.

The University Fee and the Examination Fee are not subject to rebate. After the last day of the period provided for change of course, as announced in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar. When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for admission, a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in course or in entrance requirements, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material, and the like, is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals beyond this allowance; and also service in washing apparatus, or work by a mechanic.

The Announcement of each School contains a schedule of fees and expenses for the courses in that School. (See page 13.)

LIBRARY

The General Library of the University contains about 712,000 volumes, exclusive of unbound pamphlets and doctoral dissertations. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library,

the Ella Weed Library of Barnard College, the Bryson Library of Teachers College, and the libraries of the College of Physicians and Surgeons and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are three residence halls for men on the University grounds—Hartley, Livingston, and Furnald Halls—with accommodations for approximately 820 students. Whittier Hall, maintained by Teachers College, and Brooks Hall, maintained by Barnard College, are dormitories for women. Furnald Hall is also reserved for women in 1919-1920. (See also page 15.) The University Commons, in University Hall, provides board at reasonable rates and also maintains a lunch room.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel every week-day during the academic year, except on Saturdays, at noon. The Sunday service is held at 4 o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the College of Physicians and Surgeons, the School of Dentistry, the College of Pharmacy, and the Summer Session.

MEDICAL ATTENDANCE

The University Medical Officer, Dr. McCastline, will have direct supervision of all matters affecting the health of the student body. All cases of communicable disease occurring in homes of students must be promptly reported to him. As University physician, Dr. McCastline will hold office hours daily in Earl Hall for consultation with the students.

For those who are without local family physicians there is a Medical Visitor (Dr. D. S. D. Jessup, 601 West 113th Street) whose duties are to render medical assistance to such officers and students as may desire it, either at their homes or elsewhere, at a remuneration to be arranged between himself and individual patients.

STUDENT ASSISTANCE

The University through the Secretary of Appointments endeavors to give to students who need it the opportunity to earn enough for partial support and to extend assistance in other ways.

BOOK STORE

A University book store is maintained in the building of the School of Journalism, under the auspices of the Columbia University Press, where students may purchase books and stationery at stated discounts from list prices.

The School of Dentistry

In September, 1916, students in dentistry were admitted to courses in Columbia University at the College of Physicians and Surgeons. On March 5, 1917, the Trustees of Columbia University established a School of Dentistry as of September 27, 1916, so that the conduct of courses from that date, as forming part of the work of the School, might be officially recognized. The School is located in the buildings of the College of Physicians and Surgeons, 437 West 59th Street.

Dentistry has become an increasingly important factor in the understanding, diagnosis, and treatment of diseases which hitherto have been obscure in origin but which are now known to arise from pathological conditions of the mouth and teeth, and can accordingly be controlled and prevented. Recent investigations have shown that rheumatism, anemia, arterio-sclerosis, digestive disorders, diseases of the heart and kidneys, nervous affections, neuralgia, etc., are influenced and are often caused by diseased teeth and neglected mouths.

Dentistry, quite as much as any of the medical specialties, is logically a branch of general medicine, although traditions, which have separated medicine and dentistry and which operate against the public welfare, have prevented due recognition of this fundamental fact.

It is obvious that dentistry cannot render its highest service to the individual or in the interest of public health, unless dentists are thoroughly educated in the knowledge of general medicine and of dentistry as a medical specialty. Columbia University has provided such a broad special preparation for the practice of dentistry by establishing a School of Dentistry coördinate with the School of Medicine and by establishing a four-year course in dentistry.

The courses in the School of Dentistry are based upon the same preliminary requirements as the study of medicine in Columbia University, and the entire course requires four years.

Women are admitted to the dental course on the same conditions as to the medical course.

Requirements for Admission to the School of Dentistry

The minimum requirements for admission to the first year will comprise two years of college work aggregating seventy-two points, as rated at present in Columbia College. This work must include one year of physics, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative chemical analysis, one-half year of organic chemistry, one year of biology, two years of college English, and the equivalent in either French or German of courses A and B as prescribed by Columbia College. The preparation in physics, chemistry, and biology, which will be required for admission, is represented by the following courses in Columbia College:

Physics A1-A2—General elementary physics. Three lectures and two hours' laboratory work a week for one year.

Chemistry 3-4—General inorganic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 11—Qualitative analysis. Two lectures and six hours' laboratory work a week for one-half year.

Chemistry 41—Organic chemistry. Three lectures and six hours' laboratory work a week for one-half year.

Zoology 1-2—Elementary biology and zoology. Two lectures and four hours' laboratory work a week for one year.

While the above courses represent the minimum requirements for admission to the first year, it is highly recommended that, if possible, the college work include three, instead of two, years, so as to allow a more thorough preparation in physics, chemistry, and biology. Such a three-year course, as offered by Columbia College, includes among other studies the courses in the basal sciences indicated below. Although this combination of courses is given in Columbia, it is not essential that other colleges should adhere to this curriculum, except in so far as the minimum just given above is concerned. Other advanced work in the preliminary sciences would undoubtedly fit the student for his dental work in a most satisfactory manner.

Mathematics 1—Algebra. Three hours a week for one-half year.

Mathematics 4—Analytical geometry. Three hours a week for one-half year.

Mathematics 15-16—Differential and integral calculus. Three hours a week for one year.

Physics 2—Mechanics and wave motion. Three lectures and one recitation a week for one-half year.

Physics 3—Heat and light. Three lectures and one recitation a week for one-half year.

Physics 4—Electricity. Three lectures and one recitation a week for one-half year.

Physics 41-42—Physical laboratory. Four hours a week for one year.

Chemistry 3-4—General inorganic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 11—Qualitative analysis. Two lectures and six hours' laboratory work a week for one-half year.

Chemistry 66—Quantitative analysis. One lecture and six hours' laboratory work a week for one-half year.

Chemistry 41-42—Organic chemistry. Three lectures and six hours' laboratory work a week for one year.

Chemistry 22—Physical chemistry. Three lectures a week for one-half year.

Zoology 1-2—Elementary biology and zoology. Two lectures and four hours' laboratory work a week for one year.

Zoology 91-92—General zoology. Two lectures and six hours' laboratory work a week for one year.

Application—Students should apply in the spring, if possible, and may use Summer Session courses to make good deficiencies. All applications should be accompanied by the sum of twenty-five cents, to defray the cost of the dental student's certificate, which is required by the laws of the state. For admission students must consult Professor Adam L. Jones, Room 321 University Hall.

All information regarding the courses in Dentistry may be obtained by addressing Dr. Frank T. Van Woert, 35 West 39th Street.

Combined Courses—Attention of students of Dentistry who propose to enter the Columbia School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

The requirements for admission to the School of Dentistry include the following subjects, to be taken in college: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and French or German A and B.

Upon receiving 72 points in Columbia College, which is usually possible in two years, a student may take studies in the School of Dentistry provided he can satisfy the stated requirements for admission thereto and may receive the B.S. degree from that school upon the satisfactory completion of two years of professional study. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may take studies in the first year of School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

After September, 1920, the School of Dentistry will admit "combined course" students from other institutions to advanced standing upon the conditions, first, that they have fulfilled the educational requirement of the classes in the college to which they ask admission, especially as to the pre-medical equivalent of 72 points in Columbia College, and, second, that they have received a bachelor's degree prior to their admission to the School of Dentistry.

Requirements in the Sciences—Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3c-4c or 6c-7c*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Requirements for Admission to Advanced Standing

Admission to Advanced Standing—In addition to the dental student's certificate mentioned above, based on at least two years of college work completed

before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. *It is essential that students offering themselves for admission to advanced standing should have had before admission all the preliminary work presented in the curriculum of the School of Dentistry.*

Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their schools of previous residence.

Admission of Special Students—Graduates in dentistry or students who desire to pursue a special course without graduation may register as special students, after approval by the head of the department conducting the course. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of Doctor of Dental Surgery.

Requirements for Graduation—In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

Graduate Instruction—An increasing number of advanced courses is being opened to graduates in dentistry. These now include courses in bacteriology, biological chemistry, dermatology, and syphilology, diseases of children, laryngology, and otology, neurology, pathology, physiology, practice of dental medicine, oral surgery, therapeutics, and anesthesia. Those who wish such opportunities for study are referred to the departmental statements in the Announcement of the School of Medicine.

Summer Session—July 7 to August 15, 1919. Courses in medicine in the Summer Session are open to all properly qualified students without examination. They will count toward the degree of Doctor of Dental Surgery for those who have been admitted to the School of Dentistry, or those who, being eligible for admission to advanced standing, shall subsequently matriculate, especially for those who are candidates for advanced standing, and are deficient in any of the subjects offered. Courses in the Summer Session cannot be accepted from students prior to matriculation in the School of Dentistry except to fulfill deficiencies in their work. Such courses cannot be offered to anticipate work required from students of equal rank except by students already entered in the School.

Attention is called to summer courses in chemistry, nutrition, physics, physiology, psychology, and zoology. For full particulars concerning these courses, and an Announcement of the Summer Session, address the Secretary of Columbia University, New York, N. Y.

Registration

The academic year of 1919-1920 begins Wednesday, September 24, 1919, and continues until June 2, 1920. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September. Students will be required to register personally in the Assistant Registrar's office, 437 West 59th Street, on a blank provided for the purpose.

Fees

Drafts and checks should be drawn for the exact amount to the order of Columbia University, as no change will be returned to students on checks.

Payment of fees after the last day of registration imposes automatically the statutory fee of \$5.00 for this privilege (see Academic Calendar, p. 23).

The following fees are prescribed by statute:

Summary of Fees

- A. University fee:
For all students for each Session or any part thereof \$5
- B. Tuition fee:
For all students per point, except in cases where a special fee is fixed
for a particular course 6
- C. For a degree or a certificate, or for an examination therefor:
For any professional or technical degree or certificate, including the
degree of D.D.S. in the School of Dentistry 25
- D. Privileges:
1. Late registration or application 5
2. Deficiency and special examinations 5
With a maximum fee for examinations in a single series of 25
The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President. (See *Administrative Procedure* following.)
- E. Rebates:
1. The University fee and the degree fee are not subject to rebate.
2. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar.

Administrative Procedure

Late registration: For the ultimate date for the completion of registration without the payment of the additional fee, see the Academic Calendar (p. 23).

Late application: For the ultimate date for filing an application for admission, or for a deficiency or special examination, or for a degree, without the payment of the additional fee, see the Academic Calendar (p. 23).

Deposits—A deposit of \$15.00 will be required in the first year to cover material and breakage in the laboratories of anatomy, biological chemistry, and physiology.

Fees for Repeated Courses—Students obliged to repeat the work of any year are required to pay a tuition fee of \$6.00 per point for each subject repeated.

Degrees

Columbia University will confer the degree of B.S. in Dentistry to students who complete the first two years of the School of Dentistry, and the degree of D.D.S. on the completion of the four-year course.

Those students who elect the combined course in Columbia University will receive the degree of A.B. upon the nomination of Columbia College.

Examinations and Standing

Examinations are held in January and at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See fall examination calendar.)

No student will be recommended for the degree of D.D.S. until he shall have completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

The standing which regulates a student's advancement to the work of the succeeding year is determined as follows:

An unsatisfactory record of practical work in any subject may bar a student from examination, the result being failure in the year's work in that subject. By a satisfactory record in practical work is meant a record of punctual attendance, unless prevented by illness or unavoidable causes, on the practical courses. These courses can be taken only during the year to which they belong, so that they cannot be made up at a later time, except in those cases where provision is made in the Summer Session.

Conditions for Advancement

1. A student is not allowed to go on with his class who has failed in any one of his courses, until he has removed that failure to the satisfaction of the head of the department involved.

2. A student who has failed in two or more of his courses at the end of any academic year is automatically dropped from the school and can neither go on with his class nor be given an opportunity to pass off the failures, nor repeat the year.

3. A student who has failed in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.

4. No student is allowed to take more than five years in which to complete the professional work for his degree. He may repeat only one year during his course.

5. A student who has failed in one course and repeated the entire year in which the course was given is automatically dropped from the school, if he in a subsequent year fails in one of his courses and does not succeed in passing it off in the fall.

Oral Hygiene

Under the Department of Extension Teaching, Columbia University conducts courses in oral hygiene which are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least one year of high school work, and the attainment of at least nineteen years of age. Full information may be obtained by addressing Dr. Albert H. Stevenson, at 35 West 39th Street, or the Director of Extension Teaching, Morningside Heights.

Advanced Courses in Dentistry

Advanced courses in dentistry for practitioners are offered by the Department of Extension Teaching in the laboratory and infirmary at 35 West 39th Street. These courses cover the subjects of operative and prosthetic dentistry, oral surgery, anesthesia, exodontia, plate prosthesis, periodontia, and dental ceramics, and vary in length from five to eleven weeks, according to the requirements of the subject. Full information may be obtained from Dr. Albert H. Stevenson, 35 West 39th Street, or at the office of the Director of Extension Teaching, Morningside Heights.

Residence Halls

Hartley and Livingston Halls (for men), and Fernald Hall (for women) on South Field, are open for the accommodation of students in the School of Dentistry.

A pamphlet containing floor plans of the residence halls and indicating the charge for each room will be mailed upon application to the Secretary of the University.

University Privileges

As the School of Dentistry is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of any department of the University. Students who can spare the time, and who are qualified by their previous training, may pursue courses of study and research in any department of the University. They may reside in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

License to Practise Dentistry in New York State

Those desiring to take the New York State Board examinations are advised to address Mr. George M. Wiley, Director of Examinations and Inspections Division, New York State Education Department, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

Examinations—The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

Schedule of examinations for license to practise dentistry, 1920:

	1920
Winter	Jan. 27-31
Summer	June 29-July 3
Autumn	Oct. 5-9

Dental Curriculum

<i>First Year</i>	<i>Hours</i>
Anatomy	240
Histology and Embryology	150
Physiological Chemistry	180
Prosthetic Dentistry	345
Operative Dentistry technic	150
<i>Total</i>	1,065
<i>Second Year</i>	
Anatomy	128
Physiology	300
Bacteriology	180
Dental Histology	90
Operative Dentistry	195
Prosthetic Dentistry	150
Metallurgy	60
Pharmacology and Materia Medica	30
<i>Total</i>	1,120
<i>Third Year</i>	
Pathology	200
Dental Pathology	90
Radiography	30
Oral Prophylaxis	150
Operative Dentistry	240
Prosthetic Dentistry	225
Crown and Bridge Work	150
Orthodontia	30
<i>Total</i>	1,115

<i>Fourth Year</i>	<i>Hours</i>
Anesthesia	15
Physical Diagnosis	60
Pharmacology	120
Clinical Pathology	60
Operative Dentistry	420
Prosthetic Dentistry	195
Oral Surgery	120
Orthodontia	75
Oral Hygiene and Prophylaxis	35
Dental History and Ethics	5
Jurisprudence and Economics	5
Surgical Clinic	60
<i>Total</i>	<hr/> 1,170

Departmental Statements

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences arranged with the object of correlating such new material with that of the standard text-books.

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., to candidates for the degree of A.B. in Columbia College, and to candidates for the degree of A.M. or Ph.D., and to graduates in dentistry and medicine.

Anatomy

Anatomy 101a-102a—Histology and embryology. First year. 5 hours per week. 2 points each Session

9 a. m.—12 m., Monday; 9—11 a. m., Friday

Anatomy 103-104—Anatomy of the extremities, preliminary visceral anatomy. First year. 12 hours per week. 8 points each Session. Professor HUNTINGTON, Drs. WAUGH and GALLAUDET

2—6 p. m., Tuesday, Thursday, and Saturday; 12 m.—1 p. m., Tuesday and Thursday

Dental students will be required to give at least 240 actual hours of the time indicated in this course, counting 8 hours per week and 6 points.

Anatomy 105-106—Anatomy of the head, abdomen, and thorax. Second year. 12 hours per week, November 1 to March 15. 2 hours from September 15 to February 24. 8 points. Professor HUNTINGTON, Drs. WAUGH and GALLAUDET

2—6 p. m., Monday, Wednesday, and Friday; 12 m.—1 p. m., Tuesday and Thursday

Dental students will be required to give at least 128 actual hours of the time indicated in this course, counting 8 hours per week and 6 points.

Bacteriology

Bacteriology 101—General bacteriology and immunity. Second year. 6 hours lectures and 9 hours laboratory per week September 24 to January 1. 8 points. Professor ZINSSER and Dr. DWYER

Laboratory, 9 a. m.—12 m., Monday, Tuesday, and Friday, or 9 a. m.—12 m., Wednesday, Thursday, and Saturday

Lectures, 12 m.—1 p. m., Monday, Wednesday, Friday, and Saturday, and 2–3 p. m., Thursday and Saturday

Crown and Bridgework

Crown and bridgework 103-104. Third year. 2 hours lectures and recitations, 3 hours laboratory per week. 1 point each Session. Professor PEESO and assistants

A study of the principles in the construction and application of bridgework, including the consideration of supplemental saddle support in addition to that obtained from abutments. Advanced study of the principles of occlusion and the causation of periodontal disturbances and other pathologic conditions in connection with bridgework. Laboratory technique of construction of the *simpler forms* of removable bridgework with various types of attachments. Infirmary and laboratory practice in the preparation of abutments and constructions of bridgework in mouths.

Text-book: Peeso's *Crown and Bridgework*.

Dental Histology and Embryology

Dental histology and embryology 107-108. Second year. 2 hours lectures and recitations per week Winter Session; 1 hour lecture and 3 hours laboratory work per week Spring Session. 1 point each Session. Professor WAUGH

It will embrace the tissues of the teeth; their supporting structures and the contiguous tissues of the mouth. Special emphasis will be laid upon the normal and to the natural structural changes which occur with advance of years.

In Embryology will be taught the sequential development of the cranium, with special reference to the lower anterior part of the face.

The instruction will be given by means of lectures and quizzes, supplemented by a laboratory course in which the tissues, both individual and *in situ*, will be studied under the microscope and the minute structure accurately sketched.

Operative Dentistry

Operative dentistry 101-102. Dental anatomy. First year. 1 hour lecture, 4 hours laboratory per week. 2 points each Session. Professor VAN SAUN and Dr. BEISER

Lectures, 9–10 a. m., Wednesday; laboratory, 9–11 a. m., Tuesday and Thursday

Elementary course. Lectures on anatomy of deciduous and permanent teeth. Development of the jaws and teeth. Bones of the mouth, their anatomical relations with muscles, nerves, blood and lymph vessels, glands, and intervening tissues. The structures of a tooth: description of enamel, dentin, cementum, peridental membrane, pulp; relative position of pulp chambers and canals. The temporomandibular articulation; occlusion; articulation. Congenital and acquired deformities. Laboratory work in carving teeth, filing and sawing sections of teeth, preparation of cavities in models and natural teeth, root canal technics, fillings.

Operative dentistry 103-104. Second year. 2 hours lectures per week. 4½ hours laboratory and infirmary per week. 2 points each Session. Professors W. B. DUNNING and CHASE, Dr. SCHERER, and assistants

Detailed study of the procedures of Operative dentistry.

Review of cavity nomenclature, study of cutting instruments, dental engine, instrument grasps, chair positions, use of rubber dam, and related appliances. Review of tooth histology, cavity

preparation, excavation of cavities by classes, interproximal relations, abrasions. Physical properties of filling materials; their behavior in manipulative procedures and under stress of mouth conditions.

Filling with gold, amalgam, cement, and gutta percha; pulp exposures, pulp removal, root canal cleaning and filling.

Text-book: Black's *Operative Dentistry*.

Operative dentistry 105-106—Dental anatomy. Third year. 1 hour lecture, 5 hours laboratory per week. 2 points each Session. Professors W. B. DUNNING and CHASE, Drs. SCHERER and ZASTROW

Lectures and demonstrations in theory and practice of operative dentistry; treatment of diseases of the dental pulp, peridental membrane and gingival tissues; consideration of atrophy, erosion, caries; relation of systemic conditions to mouth conditions; management of patients, the force used in mastication, examinations of the mouth, treatment of dental caries, management of cavities by classes, management of children's teeth. Further study and practice in root canal surgery and filling.

Study of the use of gold foil, of porcelain and gold inlays and details of the procedures involved in their use.

Text-books: Black's *Operative Dentistry*; Johnson's *Operative Dentistry*.

Operative dentistry 107-108—Comparative dental anatomy. Third year. 1 hour lecture per week. 1 point each Session. Professor VAN SAUN

A study of the teeth in relation to their function of mastication, in the various forms of life, leads to a clearer comprehension of the care necessary for the preservation of these organs in the human race.

This course will cover comparisons of the Invertebrates; Vertebrates, Fishes, Reptiles, Mammals; Apes, and the different races of man. A full demonstration by means of skulls, lantern slides, and other illustrations.

Text-book: Dewey's and Thompson's *Comparative Dental Anatomy*.

Operative dentistry 111-112—Radiography. Third year. 1 hour lecture and laboratory per week. 1 point each Session. Professor F. T. VAN WOERT

History and physical properties of the X-ray in dental practice; a study and demonstration of the various forms of apparatus designed to produce the high tension electric current necessary for exciting the vacuum tube, from which the rays emanate, and an analysis of the many types of tubes, with practical laboratory demonstration of each. The dental X-ray laboratory and its requisites. Dental radiographic technic.

Text-book: McCoy's *Dental and Oral Radiography*.

Operative dentistry 113-114. Fourth year. 2 hours lectures. 12 hours infirmary. 4 points each Session. Professors W. B. DUNNING and CHASE, Dr. SCHERER, and assistants

Lectures, demonstrations, infirmary practice.

Text-books, same as for O. D. 105-106, and Fischer's *Local Anesthesia*.

Operative dentistry 115—History, ethics, economics, and management of dental practice. Fourth year. 10 hours lectures. 1 point Winter Session. Professor W. B. DUNNING and assistants

Operative dentistry 119-120. Fourth year. 14 hours infirmary per week. 4 points each Session. Professors W. B. DUNNING and CHASE, Dr. SCHERER, and assistants

Training in advanced practice; clinical details in the treatment of pulpitis, pementitis, alveolar abscess, gingivitis, and in the more complex operations in root canal filling; gold inlay work as related to bridgework; consideration of the direct and indirect methods of making inlays, and of the comparative values of different filling materials.

Text-books, same as O. D. 113-114.

Oral Hygiene

Oral hygiene 102—Preventive dentistry: Oral hygiene and prophylaxis. Third year. 2 hours lectures, 8 hours demonstration and practice per week. 2 points Spring Session. Professor STEVENSON and assistants

A course in oral physiology with special reference to the indices of oral and dental normality and abnormality; and to practical measures for the maintenance of relative normality of the oral secretions and membranes, and of the teeth.

Oral hygiene 104: Oral hygiene and prophylaxis. Fourth year. 2 hours laboratory per week supplemented by 5 lectures. 1 point Spring Session. Professor STEVENSON and assistants

Orthodontia

Orthodontia 102. Third year. 1 hour lecture, 1 hour laboratory per week. 1 point Spring Session. Professor YOUNG, Dr. GOUGH, and assistant

Historical sketch; nomenclature and definitions; development of deciduous dental arches, transition from deciduous to permanent teeth; the sizes, forms, and positions of the teeth in the arches; normal occlusion; the line of occlusion; facial harmony and balance; forces governing normal occlusion; tissues surrounding the teeth; classification of malocclusion (Angle).

Orthodontia 105-106. Fourth year. 2½ hours infirmary per week. 1 point each Session. Professor YOUNG, Dr. GOUGH, and assistant

Further individual infirmary instruction.

Pathology

Pathology 101-102—General and special pathology, including experimental pathology. Third year. 16 hours lectures and laboratory per week from January 1—May 15. 9 points. Professor JOBLING and Dr. EGGSTEIN

Laboratory, 9 a. m.—1 p. m., Monday, Wednesday, Friday, and Saturday

Dental students will be required to cover at least 200 hours of the time indicated above counting 6 points.

Pathology 109-110—Dental pathology. Third year. 2 hours lectures and recitations, 1 hour laboratory work per week each Session. 1 point each Session. Professor MERRITT

Treatment of teeth with non-vital and gangrenous pulps; dento-alveolar abscesses; acute and chronic peri-apical infections; their relation to systemic diseases. Diseases of the investing tissues of the teeth, their etiology, pathology and treatment. Traumatic occlusion; periodontoclasia.

Pharmacology

Pharmacology 102a—Experimental pharmacology. Second year. 2 hours lectures per week. 2 points Spring Session

This course will be given especially for dental students and will be supplemented by Pharmacology 102b-103b given in the fourth year.

Pharmacology 102b-103b—Experimental pharmacology. Fourth year. 2 hours lectures with laboratory work per week. 2 points each Session

Pharmacology 103-104—Dental therapeutics and materia medica. Fourth year. 2 hours lectures per week. 1 point each Session

Physiology

Physiology 105-106—Human physiology. Second year. 3 hours lectures, 2 hours demonstration, 1 hour recitation, and 4 hours laboratory per week. 8 points each Session. Professor BURTON-OPITZ and assistants

Lectures, 9-10 a. m., Tuesday, Thursday and Saturday

Demonstration, 2-4 p. m., or 4-6 p. m., Monday

Laboratory, 2-6 p. m., Wednesday or Friday

Recitations, 9-10 a. m., Wednesday, or 2-3 p. m., Friday

Physiological Chemistry

Physiological Chemistry 101-102—General biological chemistry. Course in the elements of normal nutrition. First year. 1 hour lecture and 1 recitation, 4 hours laboratory per week. 4 points each Session. Professor GIES and assistants

Lecture, Tuesday, 11-12 a. m.

Recitation, Thursday, 11-12 a. m.

Laboratory, Wednesday and Saturday, 10 a. m.-12 m.

Prosthodontia

Prosthodontia 101-102—Principles of prosthetic technic. First year. 1 hour lecture, 10½ hours laboratory per week. 2 points each Session. Professors RUYL and ULSAVER, Drs. C. T. VAN WOERT, GARDNER, and assistants

Lectures, 12 m.-1 p. m., Monday and Friday

Laboratory, 2-6 p. m., Monday and Thursday, and 2-4 p. m., Saturday

Course on the fundamental principles of prosthesis and the study of impression and cast materials, their physical properties and practical demonstrations in their use in taking impression, including the Greene methods, sectional impressions in modelling compound; the assembling of fractured plaster impressions by the dry and wet methods; the preparation of impressions for the cast material; the separation of the impression from the cast, preparation of the cast for the bite plate, taking the bite and mounting upon the articulator or antagonist; selecting from one to three teeth for a technic case, grinding and adapting them to the cast; designing and waxing the case for vulcanization.

Text-books: Turner's *Prosthetic Dentistry*.

See Applied dental physics and metallurgy below.

Prosthodontia 103-104—Prosthetic technic. Second year. 1 hour lecture, 4 hours laboratory per week. 1 point each Session. Professors RUYL and ULSAVER and Drs. C. T. VAN WOERT, GARDNER, and assistants

Lectures, 2-3 p. m., Saturday

Laboratory, 2-6 p. m., Saturday

Continued study of impression and cast materials. Flasking, separating, and packing case for the vulcanizer. The physical properties of vulcanite are thoroughly demonstrated by a systematic series of experiments, including solid and hollow cubes and wedges, in combined colors designed to produce definite figures. This is an exercise necessary for artistic results in the more advanced work on practical cases later. Methods of finishing vulcanite.

Text-books, same as in the first year.

Prosthodontia 105-106. Third year. 1½ hours lectures and recitations, 6 hours laboratory per week. 2 points each Session. Professors RUYL and UL-
SAVER, Drs. C. T. VAN WOERT, GARDNER, and assistants

The mouth and its anatomy as related to artificial dentures. The study of occlusion and the possibilities for restorations with the Snow and Gysi articulator or antagonist. Sand molding; making dies and counter-dies; swaging; riming, and finishing gold, platinum, and aluminum plates. Casting of alloyed metals for prosthetic cases. The nomenclature of porcelain teeth, and the method of manufacture.

Text-books: Turner's *Prosthetic Dentistry*.

Prosthodontia 107-108—Applied dental physics and metallurgy. Second year. 1 hour lecture and recitation, 1 hour demonstration and practical laboratory per week. ½ point each Session. Professors RUYL and PEESO

Practical dental metallurgy, including a study of the various metallic elements useful in dentistry; the compounding and preparation of gold alloys, including plate golds, solders, clasp metals, various alloys for the casting process, amalgam alloys, and other metals and alloys for special purposes.

Testing mechanical strength, tenacity, and elasticity of metals and alloys, pyrometric determination of melting points, refining and assaying.

A study of the physical and mechanical details of the pressure casting process and its utilization in the various forms of prosthetic restoration.

A study and practical utilization of the various forms of casting apparatus and heating appliances for soldering, autogenous welding and melting of metals and alloys.

Prosthodontia 109-110. Fourth year. 1 hour lecture and recitation per week. 5½ hours laboratory. 2 points each Session. Professors RUYL and UL-
SAVER, Drs. C. T. VAN WOERT, GARDNER, and assistants

Laboratory and infirmary practice on practical cases, including gold casting for lingual bar and saddle fixtures, a careful study of the many forms of clasps and attachments for the retention of partial dentures. Selecting teeth for partial and full cases; anatomical articulation. Advanced study in soldering, sweating, and the use of the blow pipe, using gasoline, acetylene illuminating gas, and oxy-hydrogen flame. Porcelain carving and baking for crown; bridge and inlay work. Full dentures of platinum and porcelain, known as continuous gum work. A part of this work will be practical cases for patients in the infirmary.

Oral Surgery

Oral surgery 9. Fourth year. 4 hours lectures and recitations per week. 2 points Winter Session. Professor H. S. DUNNING and assistants

This course will cover malformations, injuries, diseases, and neoplasms of the lips, gums, teeth, hard and soft palate, maxillary bones and sinus, pharynx, tongue, floor of the mouth, salivary and lymphatic glands, mandible and buccal parietes.

The principles involved in the practice of exodontia and anesthesia, local and general, will be studied.

The course is intended to serve as preparatory for Oral surgery 11-12, which will be largely practical.

Oral surgery 10. Fourth year. 4 hours lectures and recitations, and 2 hours clinic per week. 2 points Spring Session. Professor H. S. DUNNING and assistants

All of the work of Oral surgery 9 will be reviewed and special stress will be laid upon the surgical diagnosis and treatment of cases presented at the Clinic.

Students will be required to serve a certain number of hours in the oral surgery clinic as clinical clerks and will be given an opportunity to witness and perform minor surgical operations such as extractions, apicoectomies, the removal of impacted teeth, etc., under local and general anesthesia.

ACADEMIC CALENDAR

1919-1920

1919

- July 7, Monday. **Twentieth Summer Session begins.**
- Aug. 1, Friday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. The privilege of later application may be granted up to August 15 on payment of a fee of \$5. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$5.
- Aug. 15, Friday. **Twentieth Summer Session ends.**
- Sept. 8, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of later application may be granted on payment of a fee of \$5.
- Sept. 15, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- Sept. 17, Wednesday. **Registration** (including the payment of fees) **begins.**
- Sept. 23, Tuesday. Registration ceases for students previously matriculated except graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Sept. 24, Wednesday. **Winter Session, 166th year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$5.
- Sept. 27, Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later application may be granted up to October 18 on payment of a fee of \$5.
- Oct. 1, Wednesday. Last day for filing essay for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for all degrees to be conferred in October, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$5.
- Oct. 4, Saturday. Last day for making changes in program, except for graduate students in

- Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Oct. 18, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Oct. 21, Tuesday. Stated meeting of University Council.
- Nov. 4, Tuesday. Election Day, holiday.
- Nov. 26, Wednesday. **Annual Thanksgiving Service** in St. Paul's Chapel.
- Nov. 27, Thursday, to November 29, Saturday, inclusive. Thanksgiving holidays.
- Dec. 1, Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February. The privilege of later application may be granted up to December 15 on payment of a fee of \$5.
- Dec. 7, Sunday. **Annual Commemoration Service** in St. Paul's Chapel.
- Dec. 16, Tuesday. Stated meeting of University Council.
- Dec. 22, Monday, to
- 1920**
- Jan. 3, Saturday, inclusive. Christmas holidays.
- Jan. 8, Thursday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$5.
- Jan. 15, Thursday. Mid-year entrance examinations begin.
- Jan. 21, Wednesday. Mid-year examinations begin.
- Jan. 31, Saturday. **Registration** (including the payment of fees) **begins**.
- Feb. 2, Monday. Last day for filing applications for all degrees to be conferred in February, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$5.
- Feb. 3, Tuesday. **Winter Session ends**. Last day for filing essay for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February. Registration ceases for students entering Spring Session. The privilege of later registration may be granted up to March 1 for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts on payment of a fee of \$5.
- Feb. 4, Wednesday. **Spring Session begins**. **University Service** in St. Paul's Chapel.
- Feb. 12, Thursday. Alumni Day.
- Feb. 14, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Feb. 17, Tuesday. Stated meeting of University Council.
- Feb. 23, Monday. Washington's Birthday, holiday.
- Feb. 28, Saturday. Last day for receiving late applications for registration and for making

changes in program for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.

Mar. 1, Monday. Last day for filing applications for University Fellowships and Scholarships. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June. The privilege of later application may be granted up to March 15 on payment of a fee of \$5.

Apr. 1, Thursday. Last day for filing applications for examination for the degree of Doctor of Philosophy to be conferred in June.

Apr. 1, Thursday, to

Apr. 5, Monday, inclusive, Easter holidays.

Apr. 15, Thursday. Last day for filing applications for all degrees to be conferred in June, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$5.

Apr. 19, Monday. Last day for filing applications for deficiency

and special examinations. The privilege of later application may be granted on payment of a fee of \$5.

Apr. 20, Tuesday. Stated meeting of University Council.

May 1, Saturday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$5.

Last day for filing applications for scholarships in the Schools of Law, Applied Science, and Architecture.

May 17, Monday. Final examinations begin.

May 19, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.

May 30, Sunday. **Baccalaureate Service.**

May 31, Monday. Memorial Day, holiday. Class Day.

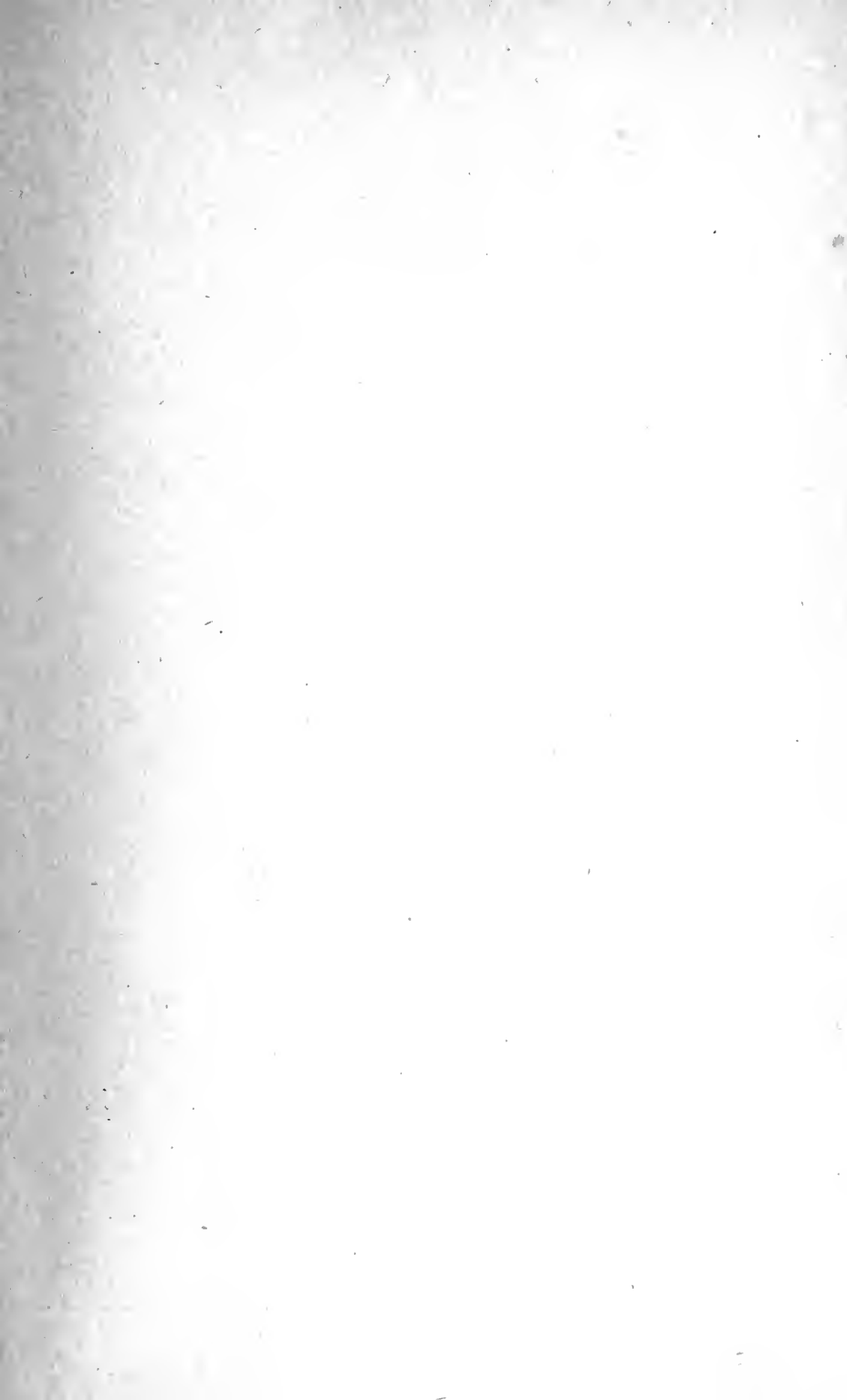
June 2, Wednesday. **Commencement Day.**

June 9, Wednesday. **Spring Session ends.**

June 21, Monday. Entrance examinations begin.

July 6, Tuesday. **Twenty-first Summer Session begins.**







Columbia University Bulletin of Information

SCHOOL OF DENTISTRY

ANNOUNCEMENT

1920-1921

Serial
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1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, issued in the spring, and relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to Professor Frank T. Van Woert, Chairman of the Faculty, 437 West 59th Street. Telephone Columbus 6210.

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1920-1921

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JAMES P. RUYL, D.D.S.	<i>Prosthodontia</i>
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HANS ZINSSER, A.M., M.D.	<i>Bacteriology</i>

Associate Professor

RUSSELL BURTON-OPITZ, M.D., M.S., Ph.D.	<i>Physiology</i>
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Assistant Professors

WILLIAM D. TRACY, D.D.S.	<i>Operative Dentistry</i>
OSCAR J. CHASE, JR., D.D.S.	<i>Operative Dentistry</i>
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CHARLES C. LIEB, A.B., M.D.	<i>Pharmacology</i>
A. M. PAPPENHEIMER, A.B., M.D.	<i>Pathology</i>
S. W. VAN SAUN, D.D.S.	<i>Operative Dentistry</i>
E. S. ULSAVER, D.D.S.	<i>Prosthodontia</i>

Instructors

H. EVERETT BEISER, D.D.S.	<i>Operative Dentistry</i>
JAMES G. DWYER, M.D.	<i>Bacteriology</i>
GEORGE W. GARDNER, D.D.S.	<i>Prosthodontia</i>
FRANK A. GOUGH, D.D.S.	<i>Orthodontia</i>
J. CLAYTON SHARP, M.D.	<i>General Histology</i>
CLARENCE T. VAN WOERT, D.D.S.	<i>Prosthodontia</i>
JOHN COLIN VAUGHAN, M.D.	<i>Anatomy</i>

GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the corporate title was changed to Columbia University.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws; the College of Physicians and Surgeons, with courses leading to the degrees of Bachelor of Science and Doctor of Medicine; the School of Mines, Engineering, and Chemistry, with courses leading to the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dentistry, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of Extension Teaching the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance, should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the College of Physicians and Surgeons and the School of Dentistry, 437 West Fifty-ninth Street; the College of Pharmacy, 115 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees to the Bursar. Students registering late are charged an additional fee and are held accountable for the absences thus incurred.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution without the consent of the appropriate Dean or Director.

GRADUATION

Diplomas are issued only at Commencement, and in February and October, upon the completion of the requirements for a degree.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each College or School, of the Summer Session, of Extension Teaching, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

FEES

Each student in the University will be called upon to pay three necessary fees. He will pay each year a University fee, a tuition fee, and, in the year of graduation, a graduation examination fee. The University and tuition fees are payable semi-annually in advance, and no reduction is made for late registration. Under the regulations, the privileges of the University are withheld from any student delinquent in the payment of fees. The fees to be paid by students are subject to change at any time at the discretion of the Trustees.

The term 'point', upon which tuition fees are based, signifies work requiring attendance equivalent to one hour weekly on lectures or recitations, or a correspondingly longer period in laboratory, drafting room, or shop. The point value of each course is given in the Announcements of the several schools.

The University Fee and the Examination Fee are not subject to rebate. After the last day of the period provided for change of course, as announced in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar. When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for admission, a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in course or in entrance requirements, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like, is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals beyond this allowance; and service in washing apparatus, or work by a mechanic.

The Announcement of each School contains a schedule of fees and expenses for the courses in that School.

LIBRARY

The General Library of the University contains about 725,000 volumes, exclusive of unbound pamphlets and doctoral dissertations. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library

the Ella Weed Library of Barnard College, the Bryson Library of Teachers College, and the libraries of the College of Physicians and Surgeons and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are three residence halls on South Field: Hartley and Livingston for men, with 300 rooms each, and Furnald Hall, reserved for women in 1920-21, with 279 rooms. Eton and Rugby Halls, for men, are situated on Claremont Avenue in immediate proximity to the Campus. Whittier and Bancroft Halls and Janus Court, maintained by Teachers College, and Brooks and Harrow Halls, maintained by Barnard College, are dormitories for women. The University Commons, in University Hall, provides board at reasonable rates and also maintains a lunch room.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination advice is given as to the kind and amount of exercise best adapted to his needs.

Students Hall, of Barnard College, and the Thompson Memorial Building, of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at 4 o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the College of Physicians and Surgeons, the School of Dentistry, the College of Pharmacy, and the Summer Session.

MEDICAL SERVICE

The University Medical Officer, Dr. McCastline, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases must be promptly reported to him. Absence from classes due to illness must also be reported to his office. Dr. McCastline, as University Physician, and the members of his staff hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Physician.

STUDENT ASSISTANCE

The University, through the Secretary of Appointments, endeavors to give to students who need it the opportunity to earn enough for partial support and to extend assistance in other ways. No prospective student, however, should come to Columbia expecting to depend entirely or even largely upon the assistance of the University, and every student should be prepared to meet at least the expenses of the first half-year—say \$400.

BOOK STORE

A University book store is maintained in the building of the School of Journalism, under the auspices of the Columbia University Press, where students may purchase books and stationery at stated discounts from list prices.

SCHOOL OF DENTISTRY

The most prevalent physical defect of the human race today is dental caries or decay. Research workers are seeking its prevention, but in the meanwhile upon the dental practitioner devolves its eradication. The diagnosis and treatment of dental lesions require painstaking training and clinical practice, while the mastery of the technic of making the many ingenious devices for restoring teeth to function demands close application and artistic skill. To the student with the necessary qualifications, dentistry offers a career in which are blended many types of humanitarian service, prophylactic, therapeutic and creative, all contributive to the health and happiness of the public at large. From a refined mechanical art, dental science has developed within a relatively short time into one of the most complex of professions embracing many branches.

The obligations placed upon the modern dentist require that he be thoroughly educated in the fundamentals of medicine. With the aim of giving the dental students an adequate training in medical subjects, the School of Dentistry is closely coordinated with the School of Medicine. The new dental building forms a wing of the College of Physicians and Surgeons.

With a view to equipping young men and women to meet these exacting demands, Columbia University has provided an unusually broad preparation for the practice of dentistry in a course that is both comprehensive and complete. A high standard of entrance requirement is maintained so that all accepted students may be fortified by an adequate preliminary education. This will enable them to concentrate upon those subjects essential to the practice of modern dentistry.

The University will confer the degree of Bachelor of Science in dentistry to students who complete the first two years of the course, and the degree of Doctor of Dental Surgery at the completion of the four year course. Those students who elect the combined course (see p. 11) in Columbia College will receive the degree of Bachelor of Arts.

The main buildings of the College of Physicians and Surgeons have been designed to facilitate the combination of theoretical instruction with laboratory work, which is essential to a scientific training. In these buildings, which have a floor space of 100,000 square feet, are situated the lecture halls, the recitation rooms, and the laboratories, under the supervision of their respective professors, all thoroughly equipped for the routine work of the regular classes and for the special original and research work of the advanced students, and officers of the several departments. The laboratories comprise those for the departments of physiology, anatomy, biological chemistry, embryology and histology, pharmacology, pathology, clinical pathology, bacteriology, medicine, neurology, and surgery. An addition to the building has been completed which adds 19,000 square feet to the laboratory facilities of the College, both for teaching and for research.

In September, 1916, students in dentistry were admitted to the courses in Columbia University at the College of Physicians and Surgeons. On March 5th, 1917 the Trustees of the University established a School of Dentistry as of Sep-

tember 27th, 1916 and from that date the school was officially recognized. On March 1st, 1920 the dental building adjacent to the College of Physicians and Surgeons and Vanderbilt Clinic was finished and assigned to the use of this school.

The new building is designed and equipped especially for dental teaching and research. On the upper floor, an operative infirmary provides individual units for the students. Each unit constitutes a modern dental operating chair, an electric engine, fountain pedestal cuspidor and private cabinet. To this equipment is added every facility of the private dental office. For the early part of the course manikin heads with rubber cheeks and suitable teeth are inserted in the head-rest of the chairs for purposes of practice, and later the Infirmary will accommodate the many cases referred from the adjacent medical departments. On the same floor, a room will be equipped for dental experimentation and research. This room will also be available for operative or prosthetic technic demonstration, and attending students can observe operations upon the mouth reflected in a large overhead mirror. The second floor is occupied by the administrative offices, and by the lecture hall where provisions are made for still and motion projections upon the screen. The prosthetic laboratory covers the first floor, and roomy individual benches fully equipped are provided for each student to perform his prosthetic technic work.

The Department of Oral Surgery is located on the third floor of Vanderbilt Clinic and consists of a large operating room with adjoining rooms for radiographic examinations and the administration of various anesthetics.

The facilities of the new building, its location in the medical center of Columbia University and the availability of interesting clinical material from the nearby medical departments, will give the dental student unusual opportunities and an environment conducive to his progress.

As the School of Dentistry is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of any department of the University. Students who can spare the time, and who are qualified by their previous training, may pursue courses of study and research in any department of the University. They may reside in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

REQUIREMENTS FOR ADMISSION

The requirements for admission to the School of Dentistry include the following subjects, to be taken in college: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and French or German A and B.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4 or 6-7*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Upon receiving 72 points in Columbia College, which is usually possible in two years, a student may take studies in the School of Dentistry provided he can satisfy the stated requirements for admission thereto and may receive the B.S. degree from that school upon the satisfactory completion of two years of professional study. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred. Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Application

Students should apply in the spring, if possible, and may use Summer Session courses to make good deficiencies. All communications should be addressed to Prof. Frank T. Van Woert, Chairman of the Faculty, 437 West 59th Street, New York City. All applications should be accompanied by the sum of twenty-five cents, to defray the cost of the dental student's certificate, which is required by the laws of the state.

Combined Courses—Attention of students of Dentistry who propose to enter the Columbia School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may take studies in the first year of School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

Requirements for Graduation—In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

Registration

The academic year of 1920-1921 begins Wednesday, September 22, 1920, and continues until June 8, 1921. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September. Students will be required to register personally in the office of the Dean, 437 West 59th Street, on a blank provided for the purpose.

Summary of Fees

The following fees are prescribed by statute:

A. University Fee:	
For all students for each Session or any part thereof	\$6
B. Tuition Fee:	
For all students per point, except in cases where a special fee is fixed for a particular course	8
C. Examination Fee:	
For any degree, including the degree of D.D.S.	20
For any certificate	10
D. Privileges:	
1. Late registration or application	6
2. Deficiency and special examinations	6
With a maximum fee for examinations in a single series of	30
The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.	
E. Rebates:	
1. The University fee and the Examination fee shall not be subject to rebate.	
2. After the last day of the period provided for change of course, as announced in the University Calendar, no tuition fees shall be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar.	

Deposits—A deposit will be required in the first year to cover material and breakage in the laboratories.

Lockers—Individual steel lockers of ample size will be assigned to each student at a fee of \$1.00 for each academic year.

Fees for Repeated Courses—Students obliged to repeat the work of any year are required to pay a tuition fee of \$8.00 per point for each subject repeated.

Examinations and Standing

Examinations are held in January and at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See fall examination calendar.)

No student will be recommended for the degree of D.D.S. until he shall have completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

The standing which regulates a student's advancement to the work of a succeeding year, is dependent upon this satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department

in which the student is deficient and will be granted if indorsed by the head of the department and approved by the chairman of the faculty.

Conditions for Advancement

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.
2. A student who fails in two or more of his courses at the end of any academic year is automatically dropped from the school.
3. A student who fails in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.
4. No student is allowed more than five years in which to complete the professional work for his degree.

Requirements for Admission to Advanced Standing

Admission to Advanced Standing—In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. *It is essential that students offering themselves for admission to advanced standing should have completed before admission all the preliminary work presented in the curriculum of the School of Dentistry.*

Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their schools of previous residence.

Admission of Special Students—Graduates in dentistry or students who desire to pursue a special course without graduation may register as special students, after approval by the head of the department conducting the course. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of Doctor of Dental Surgery.

Requirements for Graduation—In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

License to Practise Dentistry in New York State

Those desiring to take the New York State Board examinations are advised to address Mr. George M. Wiley, Director of Examinations and Inspections Division, New York State Education Department, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

Examinations—The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

Advanced Courses in Dentistry

Advanced courses in dentistry are conducted in the laboratory and infirmaries at 437 West 59th Street. These courses cover the subjects of oral diagnosis including roentgenology, oral surgery, anesthesia, exodontia, plate prosthesis, dental ceramics, cast gold inlay, root canal technic, periodontia and removable bridgework, under the educational control of the Administrative Board of the School of Dentistry. Full information may be obtained from Professor Albert H. Stevenson, 437 West 59th Street.

Oral Hygiene

Columbia University conducts courses in oral hygiene which are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. Full information may be obtained by addressing Professor Albert H. Stevenson, at 437 West 59th Street.

Dental Curriculum

<i>First Year</i>	<i>Hours</i>
Anatomy	240
General Histology and Embryology	150
Physiological Chemistry	180
Prosthetic Dentistry	345
Operative Dentistry technic	150
<i>Total</i>	1,065
<i>Second Year</i>	
Anatomy	128
Physiology	300
Bacteriology	180
Dental Histology	90
Operative Dentistry	195
Prosthetic Dentistry	150
Metallurgy	60
Pharmacology and Materia Medica	30
<i>Total</i>	1,120

<i>Third Year</i>	<i>Hours</i>
Pathology	200
Oral Pathology	90
Roentgenology	30
Oral Prophylaxis	150
Operative Dentistry	240
Prosthetic Dentistry	225
Crown and Bridgework	150
Orthodontia	30
<i>Total</i>	1,115
<i>Fourth Year</i>	
Anesthesia	15
Physical Diagnosis	60
Pharmacology	120
Clinical Pathology	60
Operative Dentistry	420
Prosthetic Dentistry	195
Oral Surgery	120
Orthodontia	75
Oral Hygiene and Prophylaxis	35
Dental History and Ethics	5
Jurisprudence and Economics	5
Surgical Clinic	60
<i>Total</i>	1,170

Departmental Statements

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences arranged with the object of correlating such new material with that of the standard text-books.

The list of the required text-books and necessary individual equipment will be furnished at the time of registration, or earlier upon request. Standard books for collateral reading may be obtained in the library.

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., to candidates for the degree of A.B. in Columbia College, to candidates for the degree of A.M. or Ph.D., and to graduates in dentistry and medicine.

Anatomy

Anatomy 101a-102a: General histology and embryology. First year; 5 hours per week; 2 points each Session. Dr. J. C. SHARP.
9 a. m.-12 m., Monday; 9-11 a. m., Friday.

Anatomy 103-104: Anatomy of the extremities, preliminary visceral anatomy. First year; 12 hours per week; 8 points each Session. Professors G. S. HUNTINGTON and B. B. GALLAUDET, and Dr. J. C. VAUGHAN.

2-6 p. m., Tuesday, Thursday, and Saturday; 12 m.-1 p. m., Tuesday and Thursday.

Dental students will be required to give at least 240 actual hours of the time indicated in this course, counting 8 hours per week and 6 points.

Anatomy 105-106: Anatomy of the head, abdomen, and thorax. Second year; 12 hours per week, 8 points each Session. Professors G. S. HUNTINGTON, B. B. GALLAUDET, and Dr. J. C. VAUGHAN.

2-6 p. m., Monday, Wednesday and Friday; 12 m.-1 p. m., Tuesday and Thursday.

Dental students will be required to give at least 128 actual hours of the time indicated in this course, counting 8 hours per week and 6 points.

Bacteriology

Bacteriology 101: General bacteriology and immunity. Second year; 6 hours lectures and 9 hours laboratory per week, 8 points Winter Session. Professors H. ZINSSER, E. H. RAYMOND, Drs. J. G. DWYER and J. H. MUELLER.

Laboratory, 9 a. m.-12 m., Monday, Tuesday, and Friday, or 9 a. m.-12 m., Wednesday, Thursday, and Saturday.

Lectures, 12 m.-1 p. m., Monday, Wednesday, Friday, and Saturday, and 2-3 p. m., Thursday and Saturday.

Crown and Bridgework

Crown and bridgework 103-104. Third year; 2 hours lectures and recitations, 3 hours laboratory per week; 1 point each Session. Professor F. A. PEESO and assistants.

A study of the principles in the construction and application of bridgework, including the consideration of supplemental saddle support in addition to that obtained from abutments. Advanced study of the principles of occlusion and the causation of periodontal disturbances and other pathologic conditions in connection with bridgework. Laboratory technic of construction of the *simpler forms* of removable bridgework with various types of attachments. Infirmary and laboratory practice in the preparation of abutments and constructions of bridgework in mouths.

Dental Histology and Embryology

Dental histology and embryology 107-108. Second year; 2 hours lectures and recitations per week Winter Session; 1 hour lecture and 3 hours laboratory work per week Spring Session; 1 point each Session. Professor L. M. WAUGH.

The course will embrace the tissues of the teeth; their supporting structures and the contiguous tissues of the mouth. Special emphasis will be given to the natural structural changes which occur with advance of years.

In embryology will be taught the development of the cranium, with special reference to the lower anterior part of the face.

The instruction will be given by means of lectures and quizzes, supplemented by a laboratory course in which each tissue in detail will be studied under the microscope and the minute structure sketched. The tooth roots and supporting tissues will also be studied and sketched *in situ* to set forth their relations.

Operative Dentistry

Operative dentistry 101-102: Dental anatomy. First year; 1 hour lecture, 4 hours laboratory per week; 2 points each Session. Professor S. W. VAN SAUN and Dr. H. E. BEISER.

Lecture, 9-10 a. m., Wednesday; laboratory, 9-11 a. m., Tuesday and Thursday.

Elementary course. Lectures on anatomy of deciduous and permanent teeth. Development of the jaws and teeth. Bones of the mouth, their anatomical relations with muscles, nerves, blood and lymph vessels, glands, and intervening tissues. The structures of a tooth: description of enamel, dentin, cementum, periodontal membrane, pulp; relative position of pulp chambers and canals. The temporomandibular articulation; occlusion; articulation. Congenital and acquired deformities. Laboratory work in carving teeth, filing and sawing sections of teeth, preparation of cavities in models and natural teeth, root canal technics, fillings.

Operative dentistry 103-104. Second year; 2 hours lectures per week; 4½ hours laboratory and infirmary per week; 2 points each Session. Professors W. B. DUNNING and O. J. CHASE, and assistants.

Detailed study of the procedures of operative dentistry.

Review of cavity nomenclature, study of cutting instruments, dental engine, instrument grasps, chair positions, use of rubber dam, and related appliances. Review of tooth histology, cavity preparation, excavation of cavities by classes, interproximal relations, abrasions. Physical properties of filling materials; their behavior in manipulative procedures and under stress of mouth conditions.

Filling with gold, amalgam, cement, and gutta percha; pulp exposures, pulp removal, root canal cleaning and filling.

Operative dentistry 105-106: Dental anatomy. Third year; 1 hour lecture, 5 hours laboratory per week; 2 points each Session. Professors W. B. DUNNING and O. J. CHASE.

Lectures and demonstrations in theory and practice of operative dentistry; treatment of diseases of the dental pulp, periodontal membrane and gingival tissues; consideration of atrophy, erosion, caries; relation of systemic conditions to mouth conditions; management of patients, the force used in mastication, examinations of the mouth, treatment of dental caries, management of cavities by classes, management of children's teeth. Further study and practice in root canal surgery and filling.

Study of the use of gold foil, of porcelain and gold inlays and details of the procedures involved in their use.

Operative dentistry 107-108: Comparative dental anatomy. Third year; 1 hour lecture per week; 1 point each Session. Professor S. W. VAN SAUN.

A study of the teeth in relation to their function of mastication, in the various forms of life, leads to a clearer comprehension of the care necessary for the preservation of these organs in the human race.

This course will cover comparisons of the Invertebrates; Vertebrates, Fishes, Reptiles, Mammals; Apes, and the different races of Man. A full demonstration by means of skulls, lantern slides, and other illustrations.

Operative dentistry 111-112: Roentgenology. Third year; 1 hour lecture and laboratory per week; 1 point each Session. Professor F. T. VAN WOERT.

History and physical properties of the X-ray in dental practice; a study and demonstration of the various forms of apparatus designed to produce the high tension electric current necessary for exciting the vacuum tube, from which the rays emanate, and an analysis of the many types of tubes, with practical laboratory demonstration of each. The dental X-ray laboratory and its requisites. Dental radiographic technic.

Operative dentistry 113-114. Fourth year; 2 hours lectures; 12 hours infirmary per week; 4 points each Session. Professors W. B. DUNNING and O. J. CHASE, and assistants.

Lectures, demonstrations, infirmary practice.

Operative dentistry 115: History, ethics, economics, and management of dental practice. Fourth year; 10 hours lectures; 1 point Winter Session. Professor W. B. DUNNING and assistants.

Operative dentistry 119-120. Fourth year; 14 hours infirmary per week; 4 points each Session. Professors W. B. DUNNING and O. J. CHASE, and assistants.

Training in advanced practice; clinical details in the treatment of pulpitis, pericementitis, alveolar abscess, gingivitis, and in the more complex operations in root canal filling; gold inlay work as related to bridgework; consideration of the direct and indirect methods of making inlays, and of the comparative values of different filling materials.

Preventive Dentistry

Preventive dentistry 102: Oral prophylaxis. Third year; 2 hours lectures; 8 hours demonstration and practice per week; 2 points Spring Session. Professor A. H. STEVENSON and assistants.

A course in demonstration and practice on manikins in a systematized technic for removing deposits and stains from the surfaces of the teeth by instrumentation and polishing. Supplemented by lectures presenting the various instruments and materials used for this purpose. After the student has acquired sufficient skill, he will be admitted to the operative infirmary.

A clinical course in the etiology of periodontoclasia including study of the various types of the same.

Preventive dentistry 104: Oral hygiene. Fourth year; 2 hours demonstrations per week, supplemented by five lectures; 1 point Spring Session. Professor A. H. STEVENSON and assistants.

A study of the indices of normality and abnormality of the teeth, the dental investing tissues and the oral secretions, and training in practical measures for maintaining the oral cavity in a state of health.

Orthodontia

Orthodontia 102. Third year; 1 hour lecture, 1 hour laboratory per week; 1 point Spring Session. Professor J. L. YOUNG, Dr. F. A. GOUGH, and assistant.

Historical sketch; nomenclature and definitions; development of deciduous dental arches, transition from deciduous to permanent teeth; the sizes, forms, and positions of the teeth in the arches; normal occlusion; the line of occlusion; facial harmony and balance; forces governing normal occlusion; tissues surrounding the teeth; classification of malocclusion (Angle).

Orthodontia 105-106. Fourth year; 2½ hours infirmary per week; 1 point each Session. Professor J. L. YOUNG, Dr. F. A. GOUGH, and assistant.

Further individual infirmary instruction.

Pathology

Pathology 101-102: General and special pathology, including experimental pathology. Third year; 16 hours lectures and laboratory per week 9 points each Session. Professors J. W. JOBLING and A. M. PAPPENHEIMER.

Laboratory, 9 a. m.-1 p. m., Monday, Wednesday, Friday and Saturday.

Dental students will be required to cover at least 200 hours of the time indicated above counting 6 points.

Pathology 109-110: Oral pathology. Third year; 2 hours lectures and recitations, 1 hour laboratory work per week each Session; 1 point each Session. Professor E. H. RAYMOND.

Treatment of teeth with non-vital and gangrenous pulps; dento-alveolar abscesses; acute and chronic periapical infections; their relation to systemic diseases. Diseases of the investing tissues of the teeth, their etiology, pathology and treatment. Traumatic occlusion; periodontoclasia.

Biological Chemistry

Biological Chemistry 101-102: General physiological chemistry. Course in the elements of normal nutrition. First year; 1 hour lecture and 1 recitation, 6 hours laboratory per week; 5 points each Session. Professor W. J. GIES, Dr. E. G. MILLER, and assistants.

Lecture, 11-12 a. m., Thursday.

Recitation, 11-12 a. m., Tuesday.

Laboratory, 10 a. m.-1 p. m., Wednesday and Saturday.

Pharmacology

Pharmacology 102a: Experimental pharmacology. Second year; 2 hours lectures per week; 2 points Spring Session. Professor C. C. LEIB.

This course will be given especially for dental students and will be supplemented by Pharmacology 102b-103b given in the fourth year.

Pharmacology 102b-103b: Experimental pharmacology. Fourth year; 2 hours lectures with laboratory work per week; 2 points each Session.

Pharmacology 103-104: Dental therapeutics and materia medica. Fourth year; 2 hours lectures per week; 1 point each Session. Professor S. W. VAN SAUN.

Physiology

Physiology 105-106: Human physiology. Second year; 3 hours lectures, 2 hours demonstration, 1 hour recitation, and 4 hours laboratory per week; 8 points each Session. Professor R. BURTON-OPITZ and assistants.

Lectures, 9-10 a. m., Tuesday, Thursday and Saturday.

Demonstration, 2-4 p. m., or 4-6 p. m., Monday.

Laboratory, 2-6 p. m., Wednesday or Friday.

Recitations, 2-3 p. m., Wednesday, or 2-3 p. m., Friday.

Prosthodontia

Prosthodontia 101-102: Principles of prosthetic technic. First year; 1 hour lecture, 10½ hours laboratory per week; 2 points each Session. Professors J. P. RUYL and E. S. ULSAVER, Drs. C. T. VAN WOERT, G. W. GARDNER, and assistants.

Lectures, 12 m.-1 p. m., Monday; 2-5 p. m., Wednesday

Laboratory, 1-5 p. m., Monday, and 1-5 p. m., Friday.

Course on the fundamental principles of prosthesis and the study of impression and cast materials, their physical properties and practical demonstrations in their use in taking impression, including the Greene methods, sectional impressions in modelling compound; the assembling of fractured plaster impressions by the dry and wet methods; the preparation of impressions for the cast material; the separation of the impression from the cast, preparation of the cast for the bite plate, taking the bite and mounting upon the articulator or antagonist; selecting from one to three

teeth for a technic case, grinding and adapting them to the cast; designing and waxing the case for vulcanization. Articulation full upper and lower dentures; vulcanizing, finishing and polishing for technic case.

See Applied dental physics and metallurgy below.

Prosthodontia 103-104: Prosthetic technic. Second year; 1 hour lecture, 4 hours laboratory per week; 1 point each Session. Professors J. P. RUYL and E. S. ULSAVER and Drs. C. T. VAN WOERT, G. W. GARDNER, and assistants.

Lectures, 2-3 p. m., Saturday.

Laboratory, 2-6 p. m., Saturday.

Continued study of impression and cast materials. Flasking, separating, and packing case for the vulcanizer. The physical properties of vulcanite are thoroughly demonstrated by a systematic series of experiments, including solid and hollow cubes and wedges, in combined colors designed to produce definite figures. This is an exercise necessary for artistic results in the more advanced work on practical cases later. Methods of finishing vulcanite.

Prosthodontia 105-106. Third year; 1½ hours lectures and recitations, 6 hours laboratory per week; 2 points each Session. Professors J. P. RUYL and E. S. ULSAVER, Drs. C. T. VAN WOERT, G. W. GARDNER, and assistants.

The mouth and its anatomy as related to artificial dentures. The study of occlusion and the possibilities for restorations with the Snow and Gysi articulator or antagonist. Sand molding; making dies and counter-dies; swaging; rimming, and finishing gold, platinum, and aluminum plates. Casting of alloyed metals for prosthetic cases. The nomenclature of porcelain teeth, and the method of manufacture.

Prosthodontia 107-108: Applied dental physics and metallurgy. Second year; 1 hour lecture and recitation, 1 hour demonstration and practical laboratory per week; ½ point each Session. Professors J. P. RUYL and F. A. PEESO.

Practical dental metallurgy, including a study of the various metallic elements useful in dentistry; the compounding and preparation of gold alloys, including plate golds, solders, clasp metals, various alloys for the casting process, amalgam alloys, and other metals and alloys for special purposes.

Testing mechanical strength, tenacity, and elasticity of metals and alloys, pyrometric determination of melting points, refining and assaying.

A study of the physical and mechanical details of the pressure casting process and its utilization in the various forms of prosthetic restoration.

A study and practical utilization of the various forms of casting apparatus and heating appliances for soldering, autogenous welding and melting of metals and alloys.

Prosthodontia 109-110. Fourth year; 1 hour lecture and recitation per week; 5½ hours laboratory; 2 points each Session. Professors J. P. RUYL and E. S. ULSAVER, Drs. C. T. VAN WOERT, G. W. GARDNER, and assistants.

Laboratory and infirmary practice on practical cases, including gold casting for lingual bar and saddle fixtures, a careful study of the many forms of clasps and attachments for the retention of partial dentures. Selecting teeth for partial and full cases; anatomical articulation. Advanced study in soldering, sweating, and the use of the blow pipe, using gasoline, acetylene illuminating gas, and oxy-hydrogen flame. Porcelain carving and baking for crown; bridge and inlay work. Full dentures of platinum and porcelain, known as continuous gum work. A part of this work will be practical cases for patients in the infirmary.

Oral Surgery

Oral surgery 9. Third year; 4 hours lectures and recitations per week; 2 points Winter Session. Professor H. S. DUNNING and assistants.

This course will cover malformations, injuries, diseases, and neoplasms of the lips, gums, teeth, hard and soft palate, maxillary bones and sinus, pharynx, tongue, floor of the mouth; salivary and lymphatic glands; mandible and buccal parietes.

The principles involved in the practice of exodontia and anesthesia, local and general, will be studied.

The course is intended to serve as preparatory for oral surgery 10, which will be largely practical.

Oral surgery 10. Fourth year; 4 hours lectures and recitations, and 2 hours clinic per week; 2 points Spring Session. Professor H. S. DUNNING and assistants.

All of the work of oral surgery 9 will be reviewed and special stress will be laid upon the surgical diagnosis and treatment of cases presented at the Clinic.

Students will be required to serve a certain number of hours in the oral surgery clinic as clinical clerks and will be given an opportunity to witness and perform minor surgical operations such as extractions, apicoectomies, the removal of impacted teeth, etc., under local and general anesthesia.

ACADEMIC CALENDAR

1920-1921

1920

July 6, Tuesday. Twenty-first **Summer Session begins.**

Aug. 2, Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. The privilege of later application may be granted up to August 15 on payment of a fee of \$6.

Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.

Aug. 13, Friday. Twenty-first **Summer Session ends.**

Sept. 6, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of later applications may be granted on payment of a fee of \$6.

Sept. 13, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

Sept. 15, Wednesday. **Registration** (including the payment of fees) **begins.**

Sept. 21, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education, and

Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 22, Wednesday. **Winter Session, 167th year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 25, Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later application may be granted up to October 16 on payment of a fee of \$6.

Oct. 2, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.

Oct. 6, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for all degrees to be conferred in October, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The

- privilege of later application may be granted on payment of a fee of \$6.
- Oct. 16, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Oct. 19, Tuesday. Stated meeting of University Council.
- Nov. 2, Tuesday. Election Day, holiday.
- Nov. 23, Tuesday. **Annual Thanksgiving Service** in St. Paul's Chapel.
- Nov. 25, Thursday, to November 27, Saturday, inclusive. Thanksgiving holidays.
- Dec. 1, Wednesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February. The privilege of later application may be granted up to December 15 on payment of a fee of \$6.
- Dec. 19, Sunday. **Annual Commemoration Service** in St. Paul's Chapel.
- Dec. 21, Tuesday. Stated meeting of University Council.
- Dec. 22, Wednesday, to
- Jan. 13, Thursday. Mid-year entrance examinations begin.
- Jan. 19, Wednesday. Mid-year examinations begin.
- Jan. 29, Saturday. **Registration** (including the payment of fees) **begins**.
- Feb. 1, Tuesday. **Winter Session ends**. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February. Last day for filing applications for all degrees to be conferred in February, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6. Registration ceases for all students entering Spring Session. The privilege of later registration may be granted up to March 1 for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts on payment of a fee of \$6.
- Feb. 2, Wednesday. **Spring Session begins**. **University Service** in St. Paul's Chapel.
- Feb. 12, Saturday. Alumni Day. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Feb. 15, Tuesday. Stated meeting of University Council.
- Feb. 22, Tuesday. Washington's Birthday, holiday.

1921

- Jan. 4, Tuesday, inclusive. Christmas holidays.
- Jan. 6, Thursday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.

- Feb. 26, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Mar. 1, Tuesday. Last day for filing applications for University Fellowships and Scholarships. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June. The privilege of later application may be granted up to March 15 on payment of a fee of \$6.
- Mar. 24, Thursday, to March 28, Monday, inclusive. Easter holidays.
- Apr. 1, Friday. Last day for filing applications for examination for the degree of Doctor of Philosophy to be conferred in June.
- Apr. 15, Friday. Last day for filing applications for all degrees to be conferred in June, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.
- Apr. 18, Monday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- Apr. 19, Tuesday. Stated meeting of University Council.
- May 2, Monday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
- May 16, Monday. Final examinations begin.
- May 18, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- May 29, Sunday. **Baccalaureate Service.**
- May 30, Monday. Class Day, Memorial Day, holiday.
- June 1, Wednesday. **Commencement day.**
- June 8, Wednesday. **Spring Session ends.**
- June 20, Monday. Entrance examinations begin.
- July 5, Tuesday. **Twenty-second Summer Session begins.**
- Aug. 1, Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. The privilege of later application may be granted up to August 15 on payment of a fee of \$6.
- Aug. 12, Friday. **Twenty-second Summer Session ends.**
- Sept. 5, Monday. Last day for filing applications for entrance examinations, and for advanced
- Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.

standing. The privilege of later application may be granted on payment of a fee of \$6.

Sept. 19, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

Sept. 21, Wednesday. **Registration** (including the payment of fees) **begins**.

Sept. 27, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure

Science, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 28, Wednesday. **Winter Session, 168th year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.





Columbia University

Bulletin of Information

SCHOOL OF DENTISTRY

ANNOUNCEMENT

1921-1922

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February 26, 1921

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1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, issued in the spring, and relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to Professor Frank T. Van Woert, Chairman of the Administrative Board, 437 West 59th Street. Telephone Columbus 9516.

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1921-1922

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CLARENCE T. VAN WOERT, D.D.S.	Prosthodontia
JOHN COLIN VAUGHAN, M.D.	Anatomy

GENERAL STATEMENT

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws; the Medical School, with courses leading to the degrees of Bachelor of Science and Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business with courses leading to the degrees of Bachelor and Master of Science; the School of Dentistry, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of

regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance, should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree. (For admission to the School of Dentistry, see pp. 12, 13.)

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the Medical School and the School of Dentistry, 437 West Fifty-ninth Street; the College of Pharmacy, 115 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees to the Bursar. Students registering late are charged an additional fee and are held accountable for the absences thus incurred.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director. (For registration in the School of Dentistry, see also p. 14.)

GRADUATION

Diplomas are issued at Commencement and in February and October, upon the completion of the requirements for a degree.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to

the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

FEEES

Each student in the University will be called upon to pay three necessary fees. He will pay each year a university fee, a tuition fee, and, in the year of graduation, a graduation examination fee. The university and tuition fees are payable semi-annually in advance, and no reduction is made for late registration. Under the regulations, the privileges of the University are withheld from the student delinquent in the payment of fees. The fees to be paid by students are subject to change at any time at the discretion of the Trustees.

The term 'point', upon which tuition fees are based, signifies work requiring attendance equivalent to one hour weekly on lectures or recitations, or a correspondingly longer period in laboratory, drafting room, or shop. The point value of each course is given in the *Announcements* of the several schools.

The university fee and the examination fee are not subject to rebate. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar. When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

The Academic Calendar gives the ultimate dates for the completion of registration and for filing applications for admission, for deficiency or special examinations, or for a degree, without the payment of an additional fee. An examination to remove a deficiency in course or in entrance requirements, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like, is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals beyond this allowance; and service in washing apparatus, or work by a mechanic.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School. (See p. 14.)

LIBRARY

The General Library of the University contains about 761,000 volumes, exclusive of unbound pamphlets and doctoral dissertations. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, the Bryson Library of Teachers College, and the libraries of the College of Physicians and Surgeons and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are three residence halls on South Field: Hartley and Livingston for men with 300 rooms each, and Furnald Hall, reserved for women in 1921-1922, with 279 rooms. Morris and Tompkins Halls, for men, are situated on Claremont Avenue in immediate proximity to the Campus. Whittier, Bancroft and Seth Low Halls, maintained by Teachers College, and Brooks and John Jay Halls, maintained by Barnard College, are dormitories for women. The University Commons, in University Hall, provides board at reasonable rates and also maintains a lunch room.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination advice is given as to the kind and amount of exercise best adapted to his needs.

Students Hall, of Barnard College, and the Thompson Memorial Building, of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the Medical School, the School of Dentistry, the College of Pharmacy and the Summer Session.

MEDICAL SERVICE

The University Medical Officer, Dr. McCastline, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes

due to illness must also be reported to his office. Dr. McCastline, as University Physician, and the members of his staff hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Physician.

STUDENT ASSISTANCE

The University, through the Secretary of Appointments, endeavors to give to students who need it the opportunity to earn enough for partial support and to extend assistance in other ways. No prospective student, however, should come to Columbia expecting to depend entirely or even largely upon the assistance of the University, and every student should be prepared to meet at least the expenses of the first Session—approximately \$400.

BOOK STORE

A University book store is maintained in the building of the School of Journalism, under the auspices of the Columbia University Press, where students may purchase books and stationery at stated discounts from list prices.

SCHOOL OF DENTISTRY

The most prevalent physical defect of the human race today is dental caries or decay. Investigators are seeking its prevention, but meanwhile upon the dental practitioner devolves the work of its eradication. The diagnosis and treatment of dental lesions require painstaking training and clinical practice, while the mastery of the technic of making the many ingenious devices for restoring teeth to function demands close application and artistic skill. To the student with the necessary qualifications, dentistry offers a career in which are blended many types of humanitarian service, prophylactic, therapeutic and restorative, all contributive to the health and happiness of the public. From a refined mechanical art, dental science has developed within a relatively short time into one of the most complex of professions, embracing many branches.

The obligations upon the modern dentist require that he be thoroughly educated in the fundamentals of medicine. With the aim of giving the dental students an adequate training in medical subjects, the School of Dentistry is closely coordinated with the School of Medicine. The new dental building forms a wing of the School of Medicine.

A high standard of entrance requirement is maintained in order that all accepted students may be fortified by an adequate preliminary education. This plan enables them to concentrate upon those subjects essential to the practice of modern dentistry.

The University will confer the degree of Bachelor of Science on students who complete the first two years of the course, and the degree of Doctor of Dental Surgery at the completion of the four year course. Students who elect the combined course (see p. 13) in Columbia College will receive the degree of Bachelor of Arts.

The main buildings of the School of Medicine have been designed to facilitate the combination of theoretical instruction with laboratory work, which is essential to a scientific training. In these buildings, which have a floor space of 100,000 square feet, are situated the lecture halls, the recitation rooms, and the laboratories, under the supervision of their respective professors, all thoroughly equipped for the routine work of the regular classes and for the special or original work of the advanced students, and officers of the several departments. The laboratories comprise those of the departments of anatomy, bacteriology, biological chemistry, embryology and histology, medicine, neurology, pathology, clinical pathology, pharmacology, physiology, and surgery. An addition to the building has been completed which adds 19,000 square feet to the laboratory facilities of the School, both for teaching and for research.

In September, 1916, students in dentistry were admitted to the courses in Columbia University at the School of Medicine. On March 5th, 1917 the Trustees of the University established a School of Dentistry as of September 27th, 1916 and from that date the school was officially recognized. On March 1st, 1920 the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

The new building is designed and equipped especially for dental teaching and research. A fourth floor has lately been added, and on this and the third floor, an operative infirmary provides individual units for the students. Each unit constitutes a modern dental operating chair, an electric engine, fountain pedestal cuspidor and private cabinet. To this equipment is added every facility of the private dental office. For the early part of the course manikin heads with rubber cheeks and suitable teeth are inserted in the head-rest of the chairs for purposes of practice, and later the Infirmary will accommodate the many cases referred from the adjacent medical departments. On the third floor, a room will be equipped for dental experimentation and research. This room* will also be available for operative or prosthetic technic demonstration, and attending students can observe operations upon the mouth reflected in a large overhead mirror. The second floor is occupied by the administrative offices, and by the lecture hall where provisions are made for still and motion projections upon the screen. The prosthetic laboratory covers the first floor, and roomy individual benches fully equipped are provided for each student to perform his prosthetic technic work.

The Department of Oral Surgery is located on the third floor of Vanderbilt Clinic and consists of a large operating room with adjoining rooms for radiographic examinations and the administration of various anesthetics.

The facilities of the new building, its location in the medical center of Columbia University and the availability of interesting clinical material from the nearby medical departments, give the dental student unusual opportunities and afford an environment conducive to his progress.

As the School of Dentistry is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of any department of the University. They may reside in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

Advanced courses in dentistry for practitioners are also conducted in the laboratory and infirmaries at 437 West 59th Street. These courses cover the subjects of oral diagnosis including radiology, oral surgery, anesthesia, exodontia, plate prosthesis, dental ceramics, cast gold inlay, root canal technic, periodontia and removable bridgework, under the educational control of the Administrative Board of the School of Dentistry. Full information may be obtained from Professor Frank T. Van Woert, 437 West 59th Street.

Courses in oral hygiene, offered by the University under the approval of the Administrative Board, are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. Full information may be obtained by addressing Dr. Anna V. Hughes, at 437 West 59th Street.

Requirements for Admission

Application. Students should apply in the spring, if possible, and may use Summer Session courses at Columbia University or elsewhere to make good deficiencies. All communications should be addressed to Professor Frank T.

Van Woert, Chairman of the Administrative Board, 437 West 59th Street, New York City. All applications should be accompanied by the sum of twenty-five cents, to defray the cost of the dental student's certificate, which is required by the laws of the state.

The requirements for admission to the School of Dentistry include the following subjects, to be taken in college: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and one year of either French or German I.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4 or 6-7, Organic Chemistry, and Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Upon receiving 72 points in Columbia College, which is usually possible in two years, a student may take studies in the School of Dentistry provided he can satisfy the stated requirements for admission thereto and may receive the B.S. degree on the recommendation of that School upon the satisfactory completion of two years of professional study. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred. Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Combined Courses—Attention of students of Dentistry who propose to enter the Columbia School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may in the first year take studies in School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

Registration

The academic year of 1921-1922 begins Wednesday, September 28, 1921, and continues until June 14, 1922. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September. Students will be required to register personally in the office of the Chairman of the Administrative Board, 437 West 59th Street, on a blank provided for the purpose.

Summary of Fees

The following fees are prescribed by statute:

- A. University Fee:**
For all students for each Session or any part thereof \$6
- B. Tuition Fee:**
For all students per point, except in cases where a special fee is fixed for a particular course 8
- C. Examination Fee:**
For any degree, including the degree of D.D.S. 20
For any certificate 10
- D. Privileges:**
1. Late registration or application 6
 2. Deficiency and special examinations 6
- With a maximum fee for examinations in a single series of 30
- The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.
- E. Rebates:**
1. The University fee and the Examination fee are not subject to rebate.
 2. After the last day of the period provided for change of course, as announced in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar.

Deposits—A deposit will be required in the first year to cover material and breakage in the laboratories.

Lockers—Locker space will be assigned to students at a fee of \$1.00 for each academic year.

Fees for Repeated Courses—Students obliged to repeat the work of any year are required to pay a tuition fee of \$8.00 per point for each subject repeated.

Examinations and Standing

Examinations are held in January and at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See fall examination calendar.)

No student will be recommended for the degree of D.D.S. until he shall have

completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

The standing which regulates a student's advancement to the work of a succeeding year, is dependent upon this satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the chairman of the Administrative Board.

Conditions for Advancement

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.

2. A student who fails in two or more of his courses at the end of any academic year is automatically dropped from the school.

3. A student who fails in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.

4. No student is allowed more than five years in which to complete the professional work for his degree.

Requirements for Admission to Advanced Standing

Admission to Advanced Standing—In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. Students seeking advanced standing will be rated in the class for which they have completed all the prerequisites.

Admission of Special Students—Graduates in dentistry or students who desire to pursue special courses without graduation may register as special students, after approval by the head of the department conducting the courses. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of Doctor of Dental Surgery.

Requirements for Graduation

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the can-

didate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have been begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

License to Practise Dentistry in New York State

Those desiring to take the New York State Board examinations are advised to address Mr. George M. Wiley, Director of Examinations and Inspections Division, New York State Education Department, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

DENTAL CURRICULUM

<i>First Year</i>	<i>Hours</i>
Anatomy	240
General Histology and Embryology	150
Biological Chemistry	180
Metallurgy	60
Prosthetic Dentistry	345
Operative Dentistry technic	120
<i>Total</i>	<u>1,095</u>

<i>Second Year</i>	
Anatomy	128
Physiology	300
Bacteriology	180
Dental Histology	90
Oral Hygiene	60
Operative Dentistry	195
Prosthetic Dentistry	150
Pharmacology and Materia Medica	30
<i>Total</i>	<u>1,133</u>

<i>Third Year</i>	
Pathology	200
Oral Pathology	90
Radiology	30
Oral Prophylaxis	105
Operative Dentistry	240
Prosthetic Dentistry	225
Crown and Bridgework	150
Orthodontia	30
<i>Total</i>	<u>1,070</u>

<i>Fourth Year</i>	
Anesthesia	15
Physical Diagnosis	60
Pharmacology	120
Clinical Pathology	60
Operative Dentistry	420
Prosthetic Dentistry	195
Oral Surgery	120
Orthodontia	75
Oral Hygiene and Prophylaxis	35
Dental History and Ethics	5
Jurisprudence and Economics	5
Surgical Clinic	60
<i>Total</i>	<u>1,170</u>

DEPARTMENTAL STATEMENTS

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., to candidates for the degree of A.B. in Columbia College, to candidates for the degree of A.M. or Ph.D., and to graduates in dentistry and medicine.

The list of the required text-books and necessary individual equipment will be furnished at the time of registration, or earlier upon request. Standard books for collateral reading may be obtained in the library.

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences arranged with the object of correlating such new material with that of the standard text-books.

Anatomy

Anatomy 101a-102a—General histology and embryology. First year; 5 hours per week; 2½ points each Session. Professor J. C. SHARP.
9 a. m.—12 m., Monday; 9—11 a. m., Friday.

Anatomy 103-104—Anatomy of the extremities, preliminary visceral anatomy. First year; 12 hours per week; 5 points each Session. Professors G. S. HUNTINGTON, B. B. GALLAUDET and Dr. J. C. VAUGHAN.

2-6 p. m., Tuesday, Thursday, and Saturday; 12 m.—1 p. m., Tuesday and Thursday.

Dental students will be required to give at least 240 actual hours of the time indicated in this course, counting 8 hours per week and 7 points.

Anatomy 105-106—Anatomy of the head, abdomen, and thorax. Second year; 12 hours per week, 4 points each Session. Professors G. S. HUNTINGTON, B. B. GALLAUDET and Dr. J. C. VAUGHAN.

2-6 p. m., Monday, Wednesday, and Friday; 12 m.—1 p. m., Tuesday and Thursday.

Dental students will be required to give at least 128 actual hours of the time indicated in this course, counting 8 hours per week and 4 points.

Bacteriology

Bacteriology 101—General bacteriology. Second year; 6 hours lectures and 9 hours laboratory per week, 6 points Winter Session. Professors H. ZINSSER, E. H. RAYMOND, JR., J. H. MUELLER, FREDERICK PARKER, JR. and Miss ANN G. KUTTNER.

Laboratory, 9 a. m.—12 m., Monday, Tuesday, and Friday, or 9 a. m.—12 m., Wednesday, Thursday, and Saturday.

Lectures, 12 m.—1 p. m., Monday, Wednesday, Friday, and Saturday.

Biological Chemistry*(Nutrition)***Biological Chemistry 101-102—General physiological chemistry.**

Course that includes the elements of normal nutrition and dietetics. First year; 1 hour lecture, 1 hour recitation, and 6 hours laboratory per week; 3 points each Session. Professors W. J. GIES, E. G. MILLER, JR., Mr. MAXWELL KARSHAN and assistants.

Lecture, 11-12 a. m., Tuesday.

Recitation, 11-12 a. m., Thursday.

Laboratory, 10 a. m.-1 p. m., Wednesday and Saturday.

Crown and Bridgework

Crown and bridgework 103-104—Third year; 2 hours lectures and recitations, 3 hours laboratory per week; 2½ points each Session. Professor F. A. PEESE and assistants.

A study of the principles in the construction and application of bridgework, including the consideration of supplemental saddle support in addition to that obtained from abutments and other *simpler forms* of removable bridgework with various types of attachments. Advanced study of the principles of occlusion and the causation of periodontal disturbances. Infirmary and laboratory practice in the preparation of abutments and constructions of bridgework in mouths.

Dental Histology and Embryology

Dental histology and embryology 107-108—Second year; 2 hours lectures and recitations per week Winter Session; 1 hour lecture and 3 hours laboratory work per week Spring Session; 1½ points each Session. Professor L. M. WAUGH.

The course will embrace a study of the tissues of the teeth; their supporting structures and the contiguous tissues of the mouth. Special emphasis will be given to the natural structural changes which occur with advance of years.

In embryology will be taught the development of the cranium, with special reference to the lower anterior part of the face.

The instruction will be given by means of lectures and quizzes, supplemented by a laboratory course in which each tissue in detail will be studied under the microscope and the minute structure sketched. The tooth roots and supporting tissues will also be studied and sketched *in situ* to set forth their relations.

Operative Dentistry

Operative dentistry 101-102—Dental anatomy. First year; 1 hour lecture, 3 hours laboratory per week; 2 points each Session. Professor S. W. VAN SAUN and Dr. H. E. BEISER.

Lecture, 9-10 a. m., Wednesday; laboratory, 9-11 a. m., Tuesday and Thursday.

Elementary course. Lectures on anatomy of deciduous and permanent teeth. Development of the jaws and teeth. Bones of the mouth, their anatomical relations with muscles, nerves, blood and lymph vessels, glands, and intervening tissues. The structures of a tooth: description of enamel, dentin, cementum, periodontal membrane, pulp; relative position of pulp chambers and canals. The temporomandibular articulation; occlusion; articulation. Congenital and acquired deformities. Laboratory work in carving teeth, filing and sawing sections of teeth, preparation of cavities in models and natural teeth, root canal technics, fillings.

Operative dentistry 103-104—Second year; 2 hours lectures per week; 4½ hours laboratory and infirmary per week; 3 points each Session. Professors W. B. DUNNING, O. J. CHASE, JR. and Dr. THOMAS F. CLONEY.

Detailed study of the procedures of operative dentistry.

Review of cavity nomenclature, study of cutting instruments, dental engine, instrument grasps, chair positions, use of rubber dam, and related appliances. Review of tooth histology, cavity preparation, excavation of cavities by classes, interproximal relations, abrasions. Physical properties of filling materials; their behavior in manipulative procedures and under stress of mouth conditions.

Filling with gold, amalgam, cement, and gutta percha; pulp exposures, pulp removal, root canal cleaning and filling.

Operative dentistry 105-106—Dental anatomy. Third year; 1 hour lecture, 6 hours laboratory per week; 3½ points each Session. Professors W. B. DUNNING, W. D. TRACY, O. J. CHASE, JR. and assistants.

Lectures and demonstrations in theory and practice of operative dentistry; treatment of diseases of the dental pulp, periodontal membrane and gingival tissues; consideration of atrophy, erosion, caries; relation of systemic conditions to mouth conditions; management of patients, the force used in mastication, examinations of the mouth, treatment of dental caries, management of cavities by classes, management of children's teeth. Further study and practice in root canal surgery and filling.

Study of the use of gold foil, of porcelain and gold inlays and details of the procedures involved in their use.

Operative dentistry 107-108—Comparative dental anatomy. Third year; 1 hour lecture per week; ½ point each Session. Professor S. W. VAN SAUN.

A study of the teeth in relation to their function of mastication, in the various forms of life, leads to a clearer comprehension of the care necessary for the preservation of these organs in the human race.

This course will cover comparisons of the Invertebrates; Vertebrates, Fishes, Reptiles, Mammals; Apes, and the different races of Man. A full demonstration by means of skulls, lantern slides, and other illustrations.

Operative dentistry 111-112—Radiology. Third year; 1 hour lecture and laboratory per week; ½ point each Session. Professor F. T. VAN WOERT.

History and physical properties of the X-ray in dental practice; a study and demonstration of the various forms of apparatus designed to produce the high tension electric current necessary for exciting the vacuum tube, from which the rays emanate, and an analysis of the many types of tubes, with practical laboratory demonstration of each. The dental X-ray laboratory and its requisites. Dental radiographic technic.

Operative dentistry 113-114—Fourth year; 2 hours lectures; 12 hours infirmary per week; 6 points each Session. Professors W. B. DUNNING, W. D. TRACY, O. J. CHASE, JR. and assistants.

Training in advanced practice; clinical details in the treatment of pulpitis, pericementitis, alveolar abscess, gingivitis, and in the more complex operations in root canal filling; gold inlay work as related to bridgework; consideration of the direct and indirect methods of making inlays, and of the comparative values of different filling materials.

Operative dentistry 115—History, ethics, economics, and management of dental practice. Fourth year; 10 hours lectures; Professors W. B. DUNNING, H. W. GILLET and assistants.

Preventive Dentistry

Preventive dentistry 102—Oral hygiene. Second year; 2 hours lectures; 2 hours demonstration and practice per week; 2 points Spring Session. Professor A. C. FONES.

A course in demonstration and practice on manikins in a systematized technic for removing deposits and stains from the surfaces of the teeth by instrumentation and polishing. Supplemented by lectures presenting the various instruments and materials used for this purpose. After the student has acquired sufficient skill, he will be admitted to the operative infirmary.

A clinical course in the etiology of periodontoclasia including study of the various types of the same.

Preventive dentistry 104—Oral prophylaxis. Third year; 1 hour recitation; 3 hours demonstrations and practice per week Winter Session; 3 hours demonstrations and practice per week Spring Session. 2 points each Session. Professor A. C. FONES and assistants.

A study of the indices of normality and abnormality of the teeth, the dental investing tissues and the oral secretions, and training in practical measures for maintaining the oral cavity in a state of health.

Preventive dentistry 106—Oral hygiene and prophylaxis. Fourth year; 2 hours demonstrations per week, supplemented by five lectures; 1 point Spring Session. Professor A. C. FONES and assistants.

Advanced oral hygiene and prophylaxis.

Orthodontia

Orthodontia 102—Third year; 1 hour lecture, 1 hour laboratory per week; 1 point Spring Session. Professor J. L. YOUNG, Dr. F. A. GOUGH and assistant.

Historical sketch; nomenclature and definitions; development of deciduous dental arches, transition from deciduous to permanent teeth; the sizes, forms, and positions of the teeth in the arches; normal occlusion; the line of occlusion; facial harmony and balance; forces governing normal occlusion; tissues surrounding the teeth; classification of malocclusion (Angle).

Orthodontia 105-106—Fourth year; 2½ hours infirmary per week; 1 point each Session. Professor J. L. YOUNG, Dr. F. A. GOUGH and assistant.

Further individual infirmary instruction.

Pathology

Pathology 101-102—General and special pathology, including experimental pathology. Third year; 16 hours lectures and laboratory per week; 7 points each Session. Professors J. W. JOBLING and A. M. PAPPENHEIMER.

Laboratory, 9 a. m.—1 p. m., Monday, Wednesday, Friday and Saturday.

Dental students will be required to cover at least 200 hours of the time indicated above counting 6 points.

Pathology 109-110—Oral pathology. Third year; 2 hours lectures and recitations, 1 hour laboratory work per week each Session; 1½ points each Session. Professor E. H. RAYMOND, JR.

A study of the etiology of diseases of the teeth, their supporting structures and contiguous parts, and of the changes brought about by such diseases.

Pharmacology

Pharmacology 102a—Experimental pharmacology. Second year; 2 hours lectures per week; 1 point Spring Session. Professor C. C. LIEB.

This course will be given especially for dental students and will be supplemented by Pharmacology 102b-103b given in the fourth year.

Pharmacology 102b-103b—Experimental pharmacology. Fourth year; 2 hours lectures with laboratory work per week; 1 point each Session. Professor C. C. LIEB.

Pharmacology 103-104—Dental therapeutics and materia medica. Fourth year; 2 hours lectures per week; 1 point each Session. Professor S. W. VAN SAUN.

Physiology

Physiology 105-106—Human physiology. Second year; 3 hours lectures, 2 hours demonstration, 1 hour recitation, and 4 hours laboratory per week; $4\frac{1}{2}$ points each Session. Professor R. BURTON-OPITZ and assistants.

Lectures, 9-10 a. m., Tuesday, Thursday, and Saturday.

Demonstration, 2-4 p. m., Monday.

Laboratory, 2-6 p. m., Friday.

Recitations, 6-7 p. m., Friday.

Prosthodontia

Prosthodontia 101-102—Principles of prosthetic technic. First year; 1 hour lecture, $10\frac{1}{2}$ hours laboratory per week; $5\frac{1}{2}$ points each Session. Professors J. P. RUYL, E. S. ULSAVER, Dr. C. T. VAN WOERT and assistants.

Lectures, 12 m.-1 p. m., Monday; 2-5 p. m., Wednesday.

Laboratory, 1-5 p. m., Monday, and 1-5 p. m., Friday.

Course on the fundamental principles of prosthesis and the study of impression and cast materials, their physical properties and practical demonstrations in their use in taking impression, including the Greene methods, sectional impressions in modelling compound; the assembling of fractured plaster impressions by the dry and wet methods; the preparation of impressions for the cast material; the separation of the impression from the cast, preparation of the cast for the bite plate, taking the bite and mounting upon the articulator or antagonist; selecting from one to three teeth for a technic case, grinding and adapting them to the cast; designing and waxing the case for vulcanization. Articulation full upper and lower dentures; vulcanizing, finishing and polishing for technic case.

See Applied dental physics and metallurgy below.

Prosthodontia 103-104—Prosthetic technic. Second year; 1 hour lecture, 4 hours laboratory per week; 2 points each Session. Professors J. P. RUYL, E. S. ULSAVER, Drs. C. T. VAN WOERT, J. W. DICKENSON, V. E. MITCHELL, R. D. HARBY and J. P. RUYL, JR.

Lectures, 1 hour.

Laboratory, 4 hours.

Study of impression and cast materials. Flasking, separating, and packing case for the vulcanizer. The physical properties of vulcanite are thoroughly demonstrated by a systematic series of experiments, including solid and hollow cubes and wedges, in combined colors designed to produce definite figures. This is an exercise necessary for artistic results in the more advanced work on practical cases later. Methods of finishing vulcanite.

Prosthodontia 105-106—Third year; $1\frac{1}{2}$ hours lectures and recitations, 6 hours laboratory per week; $3\frac{1}{2}$ points each Session. Professors J. P. RUYL, E. S. ULSAVER, Drs. C. T. VAN WOERT, J. W. DICKENSON, V. E. MITCHELL, R. D. HARBY and J. P. RUYL, JR.

The mouth and its anatomy as related to artificial dentures. The study of occlusion and the possibilities for restorations with the Snow and Gysi articulator or antagonist. Sand molding; making dies and counter-dies; swaging; rimming, and finishing gold, platinum, and aluminum plates. Casting of alloyed metals for prosthetic cases. The nomenclature of porcelain teeth, and the method of manufacture.

Prosthodontia 107-108—Applied dental physics and metallurgy. First year; 1 hour lecture and recitation, 1 hour demonstration and practical laboratory per week; 1 point each Session. Professors J. P. RUYL and F. A. PEESO.

Practical dental metallurgy, including a study of the various metallic elements useful in dentistry; the compounding and preparation of gold alloys, including plate golds, solders, clasp metals, various alloys for the casting process, amalgam alloys, and other metals and alloys for special purposes.

Testing mechanical strength, tenacity, and elasticity of metals and alloys, pyrometric determination of melting points, refining and assaying.

A study of the physical and mechanical details of the pressure casting process and its utilization in the various forms of prosthetic restoration.

A study and practical utilization of the various forms of casting apparatus and heating appliances for soldering, autogenous welding and melting of metals and alloys.

Prosthodontia 109-110—Fourth year; 1 hour lecture and recitation per week; $5\frac{1}{2}$ hours laboratory; $2\frac{1}{2}$ points each Session. Professors J. P. RUYL, E. S. ULSAVER, Drs. C. T. VAN WOERT, J. W. DICKENSON, V. E. MITCHELL, R. D. HARBY and J. P. RUYL, JR.

Laboratory and infirmary practice on practical cases, including gold casting for lingual bar and saddle fixtures, a careful study of the many forms of clasps and attachments for the retention of partial dentures. Selecting teeth for partial and full cases; anatomical articulation. Advanced study in soldering, sweating, and the use of the blow pipe, using gasoline, acetylene illuminating gas, and oxy-hydrogen flame. Porcelain carving and baking for crown; bridge and inlay work. Full dentures of platinum and porcelain, known as continuous gum work. A part of this work will be practical cases for patients in the infirmary.

Oral Surgery

Oral surgery 9—Third year; 4 hours lectures and recitations per week; 2 points Winter Session. Professors H. S. DUNNING, M. I. SCHAMBERG, B. B. PALMER, JR., D. B. PARKER and assistants.

This course will cover malformations, injuries, diseases, and neoplasms of the lips, gums, teeth, hard and soft palate, maxillary bones and sinus, pharynx, tongue, floor of the mouth; salivary and lymphatic glands; mandible and buccal parietes.

The principles involved in the practice of exodontia and anesthesia, local and general, will be studied.

The course is intended to serve as preparatory for oral surgery 10, which will be largely practical.

Oral surgery 10—Fourth year; 5 hour recitation, and $1\frac{1}{2}$ hours clinic per week; 5 points each Session. Professors H. S. DUNNING, M. I. SCHAMBERG, B. B. PALMER, JR., D. B. PARKER and assistants.

All of the work of oral surgery 9 will be reviewed and special stress will be laid upon the surgical diagnosis and treatment of cases presented at the Clinic.

Students will be required to serve a certain number of hours in the oral surgery clinic as clinical clerks and will be given an opportunity to witness and perform minor surgical operations such as extractions, apicoectomies, the removal of impacted teeth, etc., under local and general anesthesia.

ACADEMIC CALENDAR

1921-1922

1921

- July 5, Tuesday. Twenty-second **Summer Session begins.**
- Aug. 1, Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- Aug. 12, Friday. Twenty-second **Summer Session ends.**
- Sept. 12, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of later application may be granted on payment of a fee of \$6.
- Sept. 19, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- Sept. 21, Wednesday. **Registration** (including the payment of fees) **begins.** Registration in University Extension (including the payment of fees) begins.
- Sept. 23, Friday. Registration in Barnard College (including the payment of fees) begins.
- Sept. 27, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.

1921

- The privilege of later registration may be granted on payment of a fee of \$6.
- Sept. 28, Wednesday. **Winter Session, 168th year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.
- Sept. 29, Thursday. Classes begin.
- Oct. 1, Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later application may be granted up to October 22 on payment of a fee of \$6. Last day for filing applications for all degrees to be conferred in October, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.
- Oct. 5, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
- Oct. 8, Saturday. Last day for making changes in program, except for graduate students

1921

- in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Oct. 18, Tuesday. Stated meeting of University Council.
- Oct. 22, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Nov. 8, Tuesday. Election Day, holiday.
- Nov. 22, Tuesday. **Annual Thanksgiving Service** in St. Paul's Chapel.
- Nov. 24, Thursday, to November 26, Saturday, inclusive. Thanksgiving holidays.
- Dec. 1, Thursday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- Dec. 20, Tuesday. Stated meeting of University Council.
- Dec. 21, Wednesday, to

1922

- Jan. 3, Tuesday, inclusive. Christmas holidays.
- Jan. 8, Sunday. **Annual Commemoration Service** in St. Paul's Chapel.
- Jan. 12, Thursday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- Jan. 19, Thursday. Mid-year entrance examinations begin.

1922

- Jan. 25, Wednesday. Mid-year examinations begin.
- Jan. 30, Monday. Mid-year examinations in University Extension begin.
- Feb. 1, Wednesday. Last day for filing applications for all degrees to be conferred in February, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.
- Feb. 2, Thursday. Registration in University Extension (including the payment of fees) begins.
- Feb. 4, Saturday. **Registration** (including the payment of fees) **begins**.
- Feb. 7, Tuesday. **Winter Session ends**.
Registration ceases for all students entering Spring Session. The privilege of later registration may be granted up to March 4, for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts on payment of a fee of \$6. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- Feb. 8, Wednesday. **Spring Session begins**.
Classes begin.
- Feb. 13, Monday. Alumni Day.
- Feb. 18, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy,

1922

- Pure Science, Education, and Practical Arts.
- Feb. 21, Tuesday. Stated meeting of University Council.
- Feb. 22, Wednesday. Washington's Birthday, holiday.
- Mar. 1, Wednesday. Last day for filing applications for University Fellowships and Scholarships.
- Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- Mar. 4, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts.
- Apr. 1, Saturday. Last day for filing applications for examination for the degree of Doctor of Philosophy to be conferred in June.
- Apr. 13, Thursday, to April 17, Monday, inclusive. Easter holidays.
- Apr. 15, Saturday. Last day for filing applications for all degrees to be conferred in June, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.

1922

- Apr. 18, Tuesday. Stated meeting of University Council.
- May 1, Monday. Last day for students in Columbia College to file choice for studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
- Last day for filing applications for scholarships in the Schools of Law, Applied Science, and Architecture.
- May 22, Monday. Final examinations for all courses begin.
- May 24, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- May 30, Tuesday. Memorial Day, holiday.
- June 4, Sunday. **Baccalaureate Service.**
- June 5, Monday. Class Day.
- June 7, Wednesday. **Commencement day.**
- June 14, Wednesday. **Spring Session ends.**
- June 19, Monday. Entrance examinations begin.
- July 10, Monday. Twenty-third **Summer Session begins.**
- Aug. 1, Tuesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- Aug. 18, Friday. Twenty-third **Summer Session ends.**

1922

Sept. 11, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of later application may be granted on payment of a fee of \$6.

Sept. 18, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

Sept. 20, Wednesday. **Registration** (including the payment of fees) **begins**.
Registration in University Extension (including the payment of fees) begins.

Sept. 22, Friday. Registration in Barnard College (including the payment of fees) begins.

1922

Sept. 26, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 27, Wednesday. **Winter Session, 169th year, begins**.
Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Education and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.



Columbia University Bulletin of Information

SCHOOL OF DENTISTRY

ANNOUNCEMENT

1922-1923



PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY

Columbia University Bulletin of Information

Twenty-second Series, No. 24

May 27, 1922

Issued at Columbia University, Morningside Heights, New York, N. Y., thirty-seven times during the academic year, weekly between December and August. Entered as second-class matter August 10, 1918, at the Post Office, at New York, New York, under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, issued in the spring, and relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C.N.P.-8000-1922

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to Professor William B. Dunning, Associate Director of the School of Dentistry, 437 West 59th Street. Telephone, Columbus 9516.



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OFFICERS OF THE SCHOOL OF DENTISTRY

1922-1923

NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.); Hon. D. (Paris)
President of the University

ADMINISTRATIVE BOARD

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 WILLIAM DARRACH, M.D. *Dean of the School of Medicine*
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 HENRY W. GILLETT, D.M.D. *Professor of Dental Technics*

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 CHARLES S. DANIELSON *Bursar of the University*
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 WILLIAM H. MCCASTLINE, M.D. *University Medical Officer*

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OSCAR J. CHASE, JR. *Associate Professor of Operative Dentistry*
 D.D.S., New York College of Dentistry, 1905
 JOHN W. DICKINSON *Professor of Prosthetic Dentistry*
 D.M.D., Harvard University Dental School, 1901.
 HENRY S. DUNNING *Professor of Oral Surgery*
 D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York University, 1915.
 Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; Visiting Oral Surgeon, Presbyterian Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear and Throat Hospital; Consulting Oral Surgeon, St. Luke's Hospital; Consulting Oral Surgeon, Roosevelt Hospital; Consulting Oral Surgeon, St. Vincent's Hospital; Attending Oral Surgeon, New York Hospital; Attending Oral Surgeon, Reconstruction Hospital.
 WILLIAM B. DUNNING . . *Associate Director and Professor of Operative Dentistry*
 D.D.S., New York College of Dentistry, 1895.
 Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital Psychiatric Institute, Ward's Island.

- ALFRED C. FONES *Professor of Preventive Dentistry*
D.D.S., New York College of Dentistry, 1891.
Director of Dental Division, Department of Health, Bridgeport, Conn. Member of Hygiene Reference Board, Life Extension Institute.
- HENRY W. GILLETT *Professor of Dental Technics*
D.M.D., Harvard University Dental School, 1885.
- ANNA V. HUGHES *Assistant Professor of Preventive Dentistry*
D.M.D., Tufts College Dental School, 1909.
- VETHAKE E. MITCHELL *Assistant Professor of Prosthetic Dentistry*
D.D.S., University of Pennsylvania, 1892.
- BISSELL B. PALMER, JR. *Associate Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1910.
Attending Oral Surgeon, Hahnemann Hospital.
- DOUGLAS B. PARKER *Assistant Professor of Oral Surgery*
M.D., Long Island College Hospital Medical School, 1912; D.D.S., University of Pennsylvania, 1914.
Associate Surgeon, Long Island College Hospital; Instructor, Surgical Medical School, Long Island College Hospital.
- FREDERIC A. PEESO *Professor of Clinical Dentistry*
D.D.S., University of Pennsylvania, 1889.
- EDWARD H. RAYMOND, JR. *Professor of Oral Pathology*
A.B., Columbia, 1900; D.D.S., New York College of Dentistry, 1903.
Dental Surgeon, Lying in Hospital.
- MORRIS I. SCHAMBERG *Professor of Clinical Oral Surgery*
D.D.S., University of Pennsylvania, 1896; M.D., Medico-Chirurgical College, 1898.
- J. CLAYTON SHARP *Assistant Professor of Dental Histology*
M.D., Columbia, 1901.
- MARTIN C. TRACY *Assistant Professor of Prosthetic Dentistry*
D.M.D., Tufts College, 1900.
Visiting Dental Surgeon, Presbyterian Hospital.
- WILLIAM D. TRACY *Assistant Professor of Operative Dentistry*
D.D.S., University of Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- S. WELLING VAN SAUN *Associate Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1900.
- FRANK T. VAN WOERT *Director and Professor of Clinical Dentistry*
M.D.S., New York State University, 1890.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital; Psychiatric Institute, Ward's Island. Consulting Dental Surgeon, Brooklyn Hospital.
- LEUMAN M. WAUGH *Professor of Orthodontia, Histology and Embryology*
D.D.S., University of Buffalo, 1900.
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- ADAMS BAILEY, D.D.S. *Lecturer in Operative Dentistry*
- H. EVERETT BEISER, D.D.S. *Lecturer in Operative Dentistry*
- ALLEN G. BRODIE, D.D.S. *Assistant in Operative Dentistry*

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S. ELLSWORTH DAVENPORT, JR., D.M.D. . . .	<i>Lecturer in Operative Dentistry</i>
CECIL G. FLETCHER, D.M.D.	<i>Lecturer in Operative Dentistry</i>
CLINTON R. HASKELL, D.D.S.	<i>Lecturer in Prosthetic Dentistry</i>
CHARLES HATTAUER, D.D.S.	<i>Assistant in Operative Dentistry</i>
WILLIAM S. HOPKINS, D.D.S.	<i>Assistant in Oral Surgery</i>
HANNES HOVING, D.D.S.	<i>Assistant in Oral Surgery</i>
C. VICTOR JOHNSTON, D.M.D.	<i>Lecturer in Operative Dentistry</i>
H. HENRY LARSON, D.D.S.	<i>Assistant in Oral Surgery</i>
CLARENCE P. LINVILLE, B.Sc., M.A.	<i>Lecturer in Metallurgy</i>
C. FRANKLIN MACDONALD, D.M.D.	<i>Lecturer in Operative Dentistry</i>
FRANCIS S. MACCAFFREY, D.D.S.	<i>Assistant in Oral Surgery</i>
ARTHUR S. MACMILLAN, D.D.S.	<i>Assistant in Operative Dentistry</i>
C. C. MORRISON, D.D.S.	<i>Assistant in Operative Dentistry</i>
LEO GORDON POLLOCK, D.D.S.	<i>Lecturer in Operative Dentistry</i>
JAMES P. RUYL, JR., D.D.S.	<i>Lecturer in Prosthetic Dentistry</i>
JOSEPH SCHROFF, M.D.	<i>Assistant in Oral Surgery</i>
CHARLES G. SIEBERT, D.D.S.	<i>Assistant in Operative Dentistry</i>
RICHARD H. SNEDAKER, D.D.S.	<i>Assistant in Operative Dentistry</i>
RICHARD H. STUCKLEN, D.D.S.	<i>Lecturer in Prosthetic Dentistry</i>
PAUL S. TARLER, D.D.S.	<i>Assistant in Operative Dentistry</i>
ALEXANDER M. TELFER, D.D.S.	<i>Lecturer in Operative Dentistry</i>
CLARENCE T. VAN WOERT, D.D.S.	<i>Lecturer in Prosthetic Dentistry</i>
ALBERT M. WILBOR, D.D.S.	<i>Lecturer in Prosthetic Dentistry</i>
J. FRANK WYNN, D.D.S.	<i>Assistant in Oral Surgery</i>

OTHER UNIVERSITY OFFICERS GIVING INSTRUCTION IN
THE SCHOOL OF DENTISTRY

Professors: WILLIAM J. GIES, GEORGE S. HUNTINGTON, JAMES W. JOBLING, HANS ZINSSER.

Associate Professors: RUSSELL BURTON-OPITZ, CHARLES C. LIEB, EDGAR G. MILLER, JR., ALWIN M. PAPPENHEIMER, FREDERICK PARKER, JR.

Assistant Professors: BERN B. GALLAUDET, WILLIAM W. HERRICK, WILLIAM C. JOHNSON, J. HOWARD MUELLER.

Instructors: SAMUEL HIRSHFELD, RALPH A. HURD, HAROLD T. HYMAN, MAXWELL KARSHAN, FRANCES KRASNOW, ANN G. KUTTNER.

COMMITTEES

Instruction and Publication

Professors WAUGH (Chairman), RAYMOND, and CHASE.

Research

Professors GIES (Chairman), RAYMOND, and W. D. TRACY.

Library

Professor CHASE (Chairman), Drs. MACDONALD and DAVENPORT.

GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws; the School of Medicine, with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dentistry, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance, should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the College of Physicians and Surgeons and the School of Dentistry, 437 West Fifty-ninth Street; the College of Pharmacy, 115 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees to the Bursar. Students registering late are charged an additional fee and are held accountable for the absences thus incurred.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

GRADUATION

Diplomas are issued only at Commencement, and in February and October, upon the completion of the requirements for a degree.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the

Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the School or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

FEEES

Each student in the University will be called upon to pay three necessary fees. He will pay each year a University fee, a tuition fee, and, in the year of graduation, a graduation examination fee. The University and tuition fees are payable semi-annually in advance, and no reduction is made for late registration. Under the regulations, the privileges of the University are withheld from a student delinquent in the payment of fees. The fees to be paid by students are subject to change at any time at the discretion of the Trustees.

The term "point," upon which tuition fees are based, signifies work requiring attendance equivalent to one hour weekly on lectures or recitations, or a correspondingly longer period in laboratory, drafting room, or shop. The point value of each course is given in the Announcements of the several schools.

The University Fee and the Examination Fee are not subject to rebate. After the last day of the period provided for change of course, as announced in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar. When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for admission, a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in course or in entrance requirements, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like, is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals beyond this allowance; and service in washing apparatus, or work by a mechanic.

The Announcement of each School contains a schedule of fees and expenses for the courses in that School.

LIBRARY

The General Library of the University contains about 797,000 volumes, exclusive of unbound pamphlets and doctoral dissertations. The various departments

of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, the Bryson Library of Teachers College, and the libraries of the College of Physicians and Surgeons and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are three residence halls on South Field: Hartley and Livingston with 300 rooms each, and Furnald Hall with 279 rooms. Morris and Tompkins Halls are situated on Claremont Avenue in immediate proximity to the Campus. Whittier, Bancroft and Seth Low Halls, maintained by Teachers College, and Brooks and John Jay Halls, maintained by Barnard College, are dormitories for women. The University Commons, in University Hall, provides board at reasonable rates and also maintains a lunch room.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination advice is given as to the kind and amount of exercise best adapted to his needs. Students Hall, of Barnard College, and the Thompson Memorial Building, of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the School of Medicine, the College of Pharmacy and the Summer Session.

MEDICAL SERVICE

The University Medical Officer, Dr. McCastline, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. Dr. McCastline, as University Physician, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Physician.

STUDENT ASSISTANCE

The University, through the Secretary of Appointments, endeavors to give to students who need it the opportunity to earn enough for partial support and to extend assistance in other ways. No prospective student, however, should come to Columbia expecting to depend entirely or even largely upon the assistance of the University, and every student should be prepared to meet at least the expenses of the first half-year—say \$400.

BOOK STORE

A University book store is maintained in the building of the School of Journalism, under the auspices of the Columbia University Press, where students may purchase books and stationery at stated discounts from list prices.

SCHOOL OF DENTISTRY

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5th, 1917, the Trustees of the University established a School of Dentistry as of September 27th, 1916, and from that date the school was officially recognized. On March 1st, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

It is the purpose of the School of Dentistry to combine in the highest degree practicable a sound knowledge of the fundamentals of medicine with adequate training in the technical procedures of dental science and art. Two years of college work are required for admission and the course in dentistry covers four years, averaging each over one thousand hours. During the first two years the dental and medical students work together in the departments of anatomy, biological chemistry, physiology, bacteriology, pathology, etc.; the courses in these subjects being nearly parallel. The third and fourth years are devoted chiefly to the special dental studies and to clinical training.

On the completion of his second year the student receives the degree of Bachelor of Science in Dentistry; on completion of his fourth year, the degree of Doctor of Dental Surgery. Students who elect the combined courses (see p. 15) will receive the degree of Bachelor of Arts.

The main buildings of the School of Medicine combine adequate facilities for theoretical instruction with laboratory work. In these buildings, which have a floor space of 100,000 square feet, are situated the lecture halls, the recitation rooms, and the laboratories, under the supervision of their respective professors, all thoroughly equipped for the routine work of the regular classes and for the special or original work of the advanced students, and officers of the several departments. The laboratories comprise those of the departments of anatomy, bacteriology, biological chemistry, embryology and histology, medicine, neurology, pathology, pharmacology, physiology, and surgery. An addition to the building has been completed which adds 19,000 square feet to the laboratory facilities of the School, both for teaching and for research.

The new building is designed and equipped especially for dental teaching and research. A fourth floor has lately been added, and on this and the third floor, an operative infirmary provides individual units for the students. Each unit consists of a modern dental operating chair, an electric engine, fountain pedestal cuspidor and private cabinet. To this equipment is added every facility of the private dental office. Preparatory to actual work upon the patient, manikin heads with rubber cheeks and suitable teeth are inserted in the head-rests of the chairs for purposes of practice. Abundant clinical material is available from the adjacent medical departments. On the third floor, a room will be equipped for dental experimentation and research. This room will also be available for operative or prosthetic technic demonstration, and attending students can

observe operations upon the mouth reflected in a large overhead mirror. The second floor is occupied by the administrative offices, and by the lecture hall where provisions are made for still and motion projections upon the screen. The prosthetic laboratory covers the first floor, and roomy individual benches fully equipped are provided for each student to perform his prosthetic technic work.

The Department of Oral Surgery is located on the third floor of Vanderbilt Clinic and consists of a large operating room with adjoining rooms for radiographic examinations and the administration of various anesthetics.

The facilities of the new building, its location in the medical center of Columbia University and the availability of interesting clinical material give the dental student unusual opportunities for progress.

As the School of Dentistry is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of any department of the University. They may live in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

Advanced courses in dentistry for practitioners are also conducted in the laboratory and infirmaries at 437 West 59th Street. These courses cover the subjects of oral diagnosis including radiology, oral surgery, anesthesia, exodontia, plate prosthesis, dental ceramics, cast gold inlay, root canal technic, periodontia and removable bridgework, and are given under the educational control of the Administrative Board of the School of Dentistry. Full information may be obtained from Dr. Edwin J. Nestler, 437 West 59th Street.

Courses in oral hygiene, offered by the University under the direction of the Administrative Board, are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. Full information may be obtained by addressing Professor Anna V. Hughes, at 437 West 59th Street.

REQUIREMENTS FOR ADMISSION

Application. Students should apply in the spring, if possible, and may use Summer Session courses at Columbia University or elsewhere to make good deficiencies. All communications should be addressed to Professor William B. Dunning, Associate Director of the School, 437 West 59th Street, New York City. All applications should be accompanied by the sum of twenty-five cents, to defray the cost of the dental student's certificate, as required by the laws of the state.

The requirements for admission to the School of Dentistry include the following subjects, to be taken in college: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and one year of either French or German I.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4* or *6-7*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Upon receiving 72 points in Columbia College, which is usually possible in two years, a student may take studies in the School of Dentistry provided he can satisfy the stated requirements for admission thereto and may receive the B.S. degree on the recommendation of that School upon the satisfactory completion of two years of professional study. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred. Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Combined Courses—Attention of students who propose to enter the School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may in the first year take studies in the School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

REGISTRATION

The academic year of 1922-1923 begins Wednesday, September 27, 1922, and continues until June 13, 1923. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September. Students will be required to register personally in the office of the Director of the School, 437 West 59th Street, on a blank provided for the purpose.

SUMMARY OF FEES

The following fees are prescribed by statute:

A. *University Fee:*

For all students for each Session or any part thereof \$6

B. *Tuition Fee:*

For all students per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed for a particular course 8

The prescribed courses in the School of Dentistry for the purpose of determining tuition fee shall be deemed to be twenty points in the Winter Session, and twenty points in the Spring Session, for each of the four years.

C. Examination Fee:

For any degree	20
For any certificate	10

D. Privileges:

1. Late registration or application	6
2. Deficiency and special examinations	6
With a maximum fee for examinations in a single series of	30

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.

E. Rebates:

1. The University fee (A) and the Examination fee (C) are not subject to rebate.
2. After the last day of the period provided for change of course, as announced in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a *pro rata* return of fees may be authorized by the Registrar.

Deposits—A deposit of \$25. will be required in the first year to cover material and breakage in the laboratories.

Lockers—Locker space will be assigned to students at a fee of \$1.00 for each academic year.

Fees for Repeated Courses—Students obliged to repeat the work of any year are required to pay a tuition fee of \$8.00 per point for each subject repeated.

EXAMINATIONS AND STANDING

Examinations are held in January and at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See fall examination calendar.)

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

The standing which regulates a student's advancement to the work of a succeeding year, is dependent upon this satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the Director of the School.

CONDITIONS FOR ADVANCEMENT

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.

2. A student who fails in two or more of his courses at the end of any academic year is automatically suspended, pending the action of the Administrative Board.

3. A student who fails in only one course may have the opportunity to remove

the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.

4. No student is allowed more than five years in which to complete the professional work for his degree.

REQUIREMENTS FOR ADMISSION TO ADVANCED STANDING

Admission to Advanced Standing—In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. Students seeking advanced standing will be rated in the class for which they have completed all the prerequisites.

Admission of Special Students—Graduates in dentistry or students who desire to pursue special courses without graduation may register as special students, after approval by the head of the department conducting the courses. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of Doctor of Dental Surgery.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have been begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address Mr. Avery W. Skinner, Director of Examinations and Inspections Division, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

SUMMARY OF STUDIES

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

The following schedules summarize the work in each of the four years required of the candidate for the degree of D.D.S. The details of each course will be found under the Departmental Statements at p. 20 and following. Odd numbers denote courses given during Winter Session; even numbers denote those given in Spring Session.

FIRST YEAR

Hours per week

<i>Winter Session</i>		Class Lab.	
Anatomy 101	General Histology and Embryology	5	
Anatomy 103	Anatomy of the Extremities	12	
Biol. Chem. 101	General Physiological Chemistry	2	6
Pros. Dent. 101	Prosthetic Technic	1	10½
Pros. Dent. 103	Metallurgy	1	1
Opera. Dent. 101	Dental Anatomy	1	3
		22	20½

Spring Session

Anatomy 102	General Histology and Embryology	5	
Anatomy 104	Anatomy of the Extremities	12	
Biol. Chem. 102	General Physiological Chemistry	2	6
Pros. Dent. 102	Prosthetic Technic	1	10½
Pros. Dent. 104	Metallurgy	1	1
Opera. Dent. 102	Dental Anatomy and Opera. Technics	1	3
		22	20½

SECOND YEAR

Hours per Week
Class Lab. Clin.

<i>Winter Session</i>				
Anatomy 105	Anatomy of Head, Abdomen and Thorax	12		
Physiology 101	Human Physiology	6	4	
Bacteriology 101	General Bacteriology	6	9	
Preven. Dent. 101	Oral Hygiene	2		2
Opera. Dent. 103	Operative Dentistry	2	2½	2
Pros. Dent. 105	Prosthetic Technic	1	4	
Pharmacology 131	Pharmacology	2	(for 10 wks)	
		31	19½	4

Spring Session

Anatomy 106	Anatomy of Head, Abdomen and Thorax	12		
Physiology 102	Human Physiology	6	4	
Opera. Dent. 104	Operative Dentistry	2	2½	2
Pros. Dent. 106	Prosthetic Technic	1	4	
		21	10½	2

THIRD YEAR

Winter Session

		Hours per week		
		Class	Lab.	Clin.
Dental Hist. and Emb. 201	D. Hist. and Emb.	2		
Pathology 201	General and Special Pathology	8	8	
Radiology 201	Radiology	1		
Preven. Dent. 203	Oral Prophylaxis	1		3
Opera. Dent. 201	Operative Dentistry	1		6
Oral Surgery 201	Oral Surgery	4		
Orthodontia 201	Orthodontia	1	1	
Pros. Dent. 207	Prosthetic Dentistry	1½		6
Cr. and Bridge. 201	Crown and Bridgework	2	3	
		21½	12	15

Spring Session

Dental Hist. and Emb. 202	D. Hist. and Emb.	1	3	
Pathology 202	General and Special Pathology	8	8	
Radiology 202	Radiology	1		
Opera. Dent. 202	Operative Dentistry	1		6
Pros. Dent. 202	Prosthetic Dentistry	1½		6
Cr. and Bridge. 202	Crown and Bridgework	2	3	
Orthodontia 202	Orthodontia	1	1	
Preven. Dent. 204	Oral Prophylaxis			3
		14½	15	15

FOURTH YEAR

Winter Session

Pharmacology 231	Experimental Pharmacology	2	6 (12 wks.)	
Pharmacology 233	Dental Therapeutics	1		1
Pathology 203	Oral Pathology	2	1	
Opera. Dent. 203	Operative Dentistry	2		12
Opera. Dent. 205	Dental History, Ethics, etc.	1	(10 wks)	
Pros. Dent. 203	Prosthetic Dentistry	1	5½	
Oral Surgery 203	Oral Surgery	5		2
Orthodontia 203	Orthodontia			2½
		14	12½	17½

Spring Session

Phys. Diag. 202	Physical Diagnosis		(10 wks) 6	
Pathology 204	Oral Pathology	2	1	
Opera. Dent. 204	Operative Dentistry	2		12
Pros. Dent. 204	Prosthetic Dentistry	1	5½	
Orthodontia 104	Orthodontia			2½
Oral Surgery 204	Oral Surgery and Anesthesia	5		2
Preven. Dent. 206	Oral Hygiene and Prophylaxis			2
		11	6½	24½

DEPARTMENTAL STATEMENTS

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., in their first and second years, to candidates for the degree of A.B. in Columbia College, to candidates for the degree of A.M. or Ph.D., and to graduates in dentistry and medicine. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years.

The list of the required text-books and necessary individual equipment will be furnished at the time of registration, or earlier upon request. See list of books recommended at p. 26. Standard books for collateral reading may be obtained in the library.

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences arranged with the object of correlating such new material with that of the standard text-books.

Anatomy

Anatomy 101-102—General histology and embryology. First year; 5 hours per week; 2½ points each Session. Professor SHARP.
M., 9 a. m.-12 m.; F., 9-11 a. m.

Anatomy 103-104—Anatomy of the extremities, preliminary visceral anatomy. First year; 12 hours per week; 5 points each Session. Professors HUNTINGTON, and GALLAUDET and Dr. CLEVELAND.

Tu., Th., and S., 2-6 p. m.; Tu. and Th., 12 m.-1 p. m.

Dental students will be required to give at least 240 actual hours of the time indicated in this course, counting 8 hours per week and 7 points.

Anatomy 105-106—Anatomy of the head, abdomen, and thorax. Second year; 12 hours per week, 4 points each Session. Professors HUNTINGTON, and GALLAUDET and Dr. CLEVELAND.

M., W. and F., 2-6 p. m.; Tu. and Th., 12 m.-1 p. m.

Dental students will be required to give at least 128 actual hours of the time indicated in this course, counting 8 hours per week and 4 points.

Bacteriology

Bacteriology 101—General bacteriology. Second year; 6 hours lectures and 9 hours laboratory per week, 6 points Winter Session. Professors ZINSSER, RAYMOND, Jr., MUELLER, PARKER, Jr. and Miss KUTTNER.

Laboratory, M., Tu. and F., 9 a. m.-12 m., or W., Th. and S., 9 a. m.-12 m.

Lectures, M., W., F. and S., 12 m.-1 p. m.

Biological Chemistry**(Nutrition)**

Biological Chemistry 101-102—General physiological chemistry. Course that includes the elements of normal nutrition and dietetics. First year; 1 hour lecture, 1 hour recitation, and 6 hours laboratory per week; 3 points each Session. Professors GIES and MILLER, Jr., Drs. KAHN and FRANCES KRASNOW, and Mr. KARSHAN and assistants.

Lecture, Tu., 11-12 a. m.

Recitation, Th., 11-12 a. m.

Laboratory, W. and S., 10 a. m.-1 p. m.

Crown and Bridgework

Crown and bridgework 201-202—Third year; 2 hours lectures and recitations, 3 hours laboratory per week; 2½ points each Session. Professor PEESO and assistants.

A study of the principles in the construction and application of bridgework, including the consideration of supplemental saddle support in addition to that obtained from abutments and other *simpler forms* of removable bridgework with various types of attachments. Advanced study of the principles of occlusion and the causation of periodontal disturbances. Infirmary and laboratory practice in the preparation of abutments and constructions of bridgework in mouths.

Dental Histology and Embryology

Dental histology and embryology 201-202—Third year; 2 hours lectures and recitations per week Winter Session; 1 hour lecture and 3 hours laboratory work per week Spring Session; 1½ points each Session. Professor WAUGH.

The course will embrace a study of the tissues of the teeth; their supporting structures and the contiguous tissues of the mouth. Special emphasis will be given to the natural structural changes which occur with advance of years.

In embryology will be taught the development of the cranium, with special reference to the lower anterior part of the face.

The instruction will be given by means of lectures and quizzes, supplemented by a laboratory course in which each tissue in detail will be studied under the microscope and the minute structure sketched. The tooth roots and supporting tissues will also be studied and sketched *in situ* to set forth their relations.

Operative Dentistry

Operative dentistry 101-102—Dental anatomy. First year; 1 hour lecture, 3 hours laboratory per week; 2 points each Session. Professor VAN SAUN and Dr. BEISER.

Lecture, W., 9-10 a. m.; laboratory, Tu. and Th., 9-11 a. m.

Elementary course. Lectures on anatomy of deciduous and permanent teeth. Development of the jaws and teeth. Bones of the mouth, their anatomical relations with muscles, nerves, blood and lymph vessels, glands, and intervening tissues. The structures of a tooth: description of enamel, dentin, cementum, periodontal membrane, pulp; relative position of pulp chambers and canals. The temporomandibular articulation; occlusion; articulation. Congenital and acquired deformities. Comparative dental anatomy of Invertebrates, Vertebrates, Fishes, Reptiles, Mammals, Apes and different races of Man.

Laboratory work in carving teeth, filing and sawing sections of teeth, preparation of cavities in models and natural teeth, root canal technics, plastic fillings.

Operative dentistry 103-104—Second year; 2 hours lectures per week; 4½ hours laboratory and infirmary per week; 3 points each Session. Professor CHASE, Jr., and Drs. CLONEY and JOHNSTON.

Detailed study of the procedures of operative dentistry.

Review of cavity nomenclature, study of cutting instruments, tempering of steel, dental engine, instrument grasps, chair positions, use of rubber dam, and related appliances. Review of tooth histology, dental caries, cavity preparation, separation of teeth, excavation of cavities by classes, interproximal relations, abrasions and erosion. Physical properties of filling materials; their behavior in manipulative procedures and under stress of mouth conditions.

Filling with gold, amalgam, cement, and gutta percha; pulp exposures, pulp removal, root canal preparation and filling.

Operative dentistry 201-202—Third year; 1 hour lecture, 6 hours infirmary per week; 3½ points each Session. Professors W. B. DUNNING, CHASE, Jr. and assistants.

Lectures and demonstrations in theory and practice of operative dentistry; treatment of diseases of the dental pulp, periodontal membrane and gingival tissues; consideration of atrophy, erosion, caries; relation of systemic conditions to mouth conditions; management of patients, the force used in mastication, examinations of the mouth. Treatment of dental caries, further studies in the management of cavities by classes, management of children's teeth. Advanced study and practice in root canal surgery and filling.

Study of the use of gold foil, of porcelain and gold inlays and details of the procedures involved in their use.

Operative dentistry 203-204—Fourth year; 2 hours lectures; 12 hours infirmary per week; 6 points each Session. Professors W. B. DUNNING, GILLETT, CHASE, Jr. and assistants.

Training in advanced practice; clinical details in the treatment of pulpitis, pericementitis, alveolar abscess, gingivitis, and in the more complex operations in root canal filling; gold inlay work as related to bridgework; consideration of the direct and indirect methods of making inlays, and of the comparative values of different filling materials.

Operative dentistry 205—History, ethics, economics, and management of dental practice. Fourth year; 10 hours lectures; Professors W. B. DUNNING, GILLETT and assistants.

Oral Surgery

Oral surgery 201—Third year; 4 hours lectures and recitations per week; 2 points Winter Session. Professors H. S. DUNNING, SCHAMBERG, PALMER, Jr., PARKER and assistants.

This course will cover malformations, injuries, diseases, and neoplasms of the lips, gums, teeth, hard and soft palate, maxillary bones and sinus, pharynx, tongue, floor of the mouth; salivary and lymphatic glands; mandible and buccal parietes.

The principles involved in the practice of exodontia and anesthesia, local and general, will be studied.

The course is intended to serve as preparatory for oral surgery 203-204, which will be largely practical.

Oral surgery 203-204—Fourth year; 5 hour recitation, and 2 hours clinic per week; 7 points each Session. Professors H. S. DUNNING, SCHAMBERG, PALMER, Jr., PARKER and assistants.

All of the work of oral surgery 201 will be reviewed and special stress will be laid upon the surgical diagnosis and treatment of cases presented at the Clinic.

Students will be required to serve a certain number of hours in the oral surgery clinic as clinical clerks and will be given an opportunity to witness and perform minor surgical operations such as extractions, apicoectomies, the removal of impacted teeth, etc., under local and general anesthesia.

Orthodontia

Orthodontia 201-202—Third year; 1 hour lecture, 1 hour laboratory per week; 2 points each Session. Professor WAUGH and assistants.

Historical sketch; nomenclature and definitions; development of deciduous dental arches, transition from deciduous to permanent teeth; the sizes, forms, and positions of the teeth in the arches; normal occlusion; the line of occlusion; facial harmony and balance; forces governing normal occlusion; tissues surrounding the teeth; classification of malocclusion (Angle). Consideration of factors predisposing to malocclusion.

Orthodontia 203-204—Fourth year; 2½ hours infirmary per week; 1 point each Session. Professor WAUGH and assistants.

Further individual infirmary instruction for selected students.

Pathology

Pathology 201-202—General and special pathology, including experimental pathology. Third year; 16 hours lectures and laboratory per week; 7 points each Session. Professors JOBLING, PAPPENHEIMER, and JOHNSON, and assistants.

Laboratory, M., W., F. and S., 9 a. m.—1 p. m.

Dental students will be required to cover at least 200 hours of the time indicated above counting 6 points.

Pathology 203-204—Oral pathology. Fourth year; 2 hours lectures and recitations, 1 hour laboratory work per week each Session; 1½ points each Session. Professor RAYMOND, JR.

A study of the etiology of diseases of the teeth, their supporting structures and contiguous parts, and of the changes brought about by such diseases.

Pharmacology

Pharmacology 131—Pharmacology, pharmacy, prescription writing and materia medica. Second Year; 10 two-hour periods; 1 point Winter Session. Professor LIEB and Drs. HIRSHFELD, HURD and HYMAN.

Pharmacology 231—Experimental pharmacology. Fourth Year; 2 hours conference and 6 hours of laboratory work per week for 12 weeks; 3 points Winter Session. Professor LIEB and Drs. HIRSHFELD, HURD and HYMAN.

Pharmacology 233—Dental therapeutics and materia medica. Fourth Year; 1 hour lecture and 1 hour conference per week; 1 point Winter Session. Professors LIEB, W. B. DUNNING and assistants.

Physical Diagnosis

Physical diagnosis 202—Fourth year; 6 hours, 10 weeks. 4 points Spring Session. Professor HERRICK and assistants.

Physiology

Physiology 101-102—Human physiology. Second year; 3 hours lectures,

2 hours demonstration, 1 hour recitation, and 4 hours laboratory per week; 4½ points each Session. Professor BURTON-OPITZ and assistants.

Lectures, Tu., Th. and S., 9-10 a. m.

Demonstration, M., 2-4 p. m.

Laboratory, F., 2-6 p. m.

Recitation, F., 6-7 p. m.

Preventive Dentistry

Preventive dentistry 101—Oral hygiene. Second year; 2 hours lectures; 2 hours demonstration and practice per week; 2 points Winter Session. Professor A. C. FONES.

A course in demonstration and practice on manikins in a systematized technic for removing deposits and stains from the surfaces of the teeth by instrumentation and polishing. Supplemented by lectures presenting the various instruments and materials used for this purpose. After the student has acquired sufficient skill, he will be admitted to the operative infirmary.

A clinical course in the etiology of periodontoclasia including study of the various types of the same.

Preventive dentistry 203-204—Oral prophylaxis. Third year; 1 hour recitation; 3 hours demonstrations and practice per week Winter Session; 3 hours demonstrations and practice per week Spring Session. 2 points each Session. Professor FONES and assistants.

A study of the indices of normality and abnormality of the teeth, the dental investing tissues and the oral secretions, and training in practical measures for maintaining the oral cavity in a state of health.

Preventive dentistry 206—Oral hygiene and prophylaxis. Fourth year; 2 hours demonstrations per week, supplemented by five lectures; 1 point Spring Session. Professor FONES and assistants.

Advanced oral hygiene and prophylaxis.

Prosthetic Dentistry

Prosthetic dentistry 101-102—Principles of prosthetic technic. First year; 1 hour lecture, 10½ hours laboratory per week. 5½ points each Session. Professor MITCHELL, Drs. C. T. VAN WOERT, WILBOR, STUCKLEN and assistants.

Lectures, M., 12 m.-1 p. m.; W., 2-5 p. m.

Laboratory, M., 1-5 p. m.; F., 1-5 p. m.

Course on the fundamental principles of prosthesis and the study of impression and cast materials, their physical properties and practical demonstrations in their use in taking impressions, including the Greene methods, sectional impressions in modelling compound; the assembling of fractured plaster impressions by the dry and wet methods; the preparation of impressions for the cast material; the separation of the impression from the cast, preparation of the cast for the bite plate, taking the bite and mounting upon the articulator or antagonist; selecting from one to three teeth for a technic case, grinding and adapting them to the cast; designing and waxing the case for vulcanization. Articulation full upper and lower dentures; vulcanizing, finishing and polishing for technic case.

See dental metallurgy, below.

Prosthetic dentistry 103-104—Dental metallurgy. First year; 1 hour lecture and recitation, 1 hour demonstration and practical laboratory work per week; 1 point each Session. Mr. LINVILLE.

A study of general metallurgical principles and processes, followed by a more detailed consideration of the principal metals having dental applications. Properties, sources, and methods of extracting and obtaining metals from their ores, and the various smelting and refining processes.

Alloys are considered both from the theoretical and the practical side. Much time is given to the composition, and properties and uses of the various alloys used in dentistry, including the precious metal alloys for crowns, plates, clasps, and for casting. Solders, alloys and amalgams for fillings, fusible metals, babbitts, alloys for making dies and counterdies, and other alloys of interest.

Laboratory work is carried on for the purpose of demonstrating metallurgical principles and processes. The methods of metallography are studied by means of the microscope and the pyrometer. The melting, and casting of metals and alloys is also considered.

Prosthetic dentistry 105-106—Prosthetic technic. Second year; 1 hour lecture, 4 hours laboratory per week; 2 points each Session. Professor DICKINSON and Dr. C. T. VAN WOERT.

Lectures, 1 hour.

Laboratory, 4 hours.

Study of impression and cast materials. Flasking, separating, and packing case for the vulcanizer. The physical properties of vulcanite are thoroughly demonstrated by a systematic series of experiments, including solid and hollow cubes and wedges, in combined colors designed to produce definite figures. This is an exercise necessary for artistic results in the more advanced work on practical cases later. Methods of finishing vulcanite.

Prosthetic dentistry 201-202—Third year; 1 ½ hours lectures and recitations, 6 hours laboratory per week; 3 ½ points each Session. Professor DICKINSON, Drs. RUYL, Jr., and HASKELL.

The mouth and its anatomy as related to artificial dentures. The study of occlusion and the possibilities for restorations with the Snow and Gysi articulator or antagonist. Sand molding; making dies and counter-dies; swaging; rimming, and finishing gold, platinum, and aluminum plates. Casting of alloyed metals for prosthetic cases. The nomenclature of porcelain teeth, and the method of manufacture.

Prosthetic dentistry 203-204—Fourth year; 1 hour lecture and recitation per week; 5 ½ hours laboratory; 2 ½ points each Session. Professor DICKINSON, Drs. RUYL, Jr. and HASKELL.

Laboratory and infirmary practice on practical cases, including gold casting for lingual bar and saddle fixtures, a careful study of the many forms of clasps and attachments for the retention of partial dentures. Selecting teeth for partial and full cases; anatomical articulation. Advanced study in soldering, sweating, and the use of the blow pipe, using gasoline, acetylene illuminating gas, and oxy-hydrogen flame. Porcelain carving and baking for crown; bridge and inlay work. Full dentures of platinum and porcelain, known as continuous gum work. A part of this work will be practical cases for patients in the infirmary.

Radiology

Radiology 201-202—Third year; 1 hour lecture and laboratory per week; ½ point each Session. Professor F. T. VAN WOERT.

History and physical properties of the X-ray in dental practice; a study and demonstration of the various forms of apparatus designed to produce the high tension electric current necessary for exciting the vacuum tube, from which the rays emanate, and an analysis of the many types of tubes, with practical laboratory demonstration of each. The dental X-ray laboratory and its requisites. Dental radiographic technic.

REFERENCE BOOKS

- ANATOMY. Cunningham; Piersol, *Human Anatomy*, Volumes 1 and 2, seventh edition; Black, *Dental Anatomy*.
- BACTERIOLOGY. Hiss and Zinsser, *Text-book of Bacteriology*.
- HISTOLOGY AND EMBRYOLOGY. Noyes, *Dental Histology*; *Histology and Histopathology of the Teeth*; Bailey, *Text-book of Histology*, 6th edition; Bailey and Miller, *Text-book of Embryology*, 4th edition.
- HYGIENE AND PREVENTIVE DENTISTRY. Fones, *Mouth Hygiene*, 2nd edition; Hiss and Zinsser, *Infection and Resistance*, last edition.
- OPERATIVE DENTISTRY. G. V. Black, *Operative Dentistry*, 3rd edition; M. L. Ward, *American Text-book of Operative Dentistry*; C. N. Johnson, *Text-book of Operative Dentistry*, 5th edition.
- ORAL SURGERY. Brophy, *Oral Surgery*; Blair, *Mouth and Jaw*; G. V. I. Brown, *Surgery of Oral Diseases*; Scodder, *Tumors of the Jaw*; Geo. B. Winter, *Exodontia*; Fisher and Reithmuller, *Dental Anesthesia*; Smith, *Block Anesthesia*; Thoma, *Oral Anesthesia*; Paluel J. Flagg, *The Art of Anesthesia*.
- PATHOLOGY. Endlemand and Wagner, *General and Dental Pathology*; Maccallum, *Text-book of Pathology*; Black, *Special Dental Pathology*; Wells, *Chemical Pathology*.
- PHARMACOLOGY. Required: *The Laboratory Guide*. Any one of the following text-books: Buckley, *Modern Dental Materia Medica, Pharmacology and Therapeutics*; Prinz, *Dental Materia Medica and Pharmacology*; Bastedo, *Materia Medica, Pharmacology and Therapeutics*; Cushny, *Pharmacology and Therapeutics*; Dixon, *Manual of Pharmacology*; Sollman, *Manual of Pharmacology*.
- PHYSIOLOGY. Burton-Opitz, *Text-book of Physiology*; Burton-Opitz, *Advanced Lessons in Practical Physiology*, 1921; Starling, *Human Physiology*, last edition; Baylis, *Principles of General Physiology*, last edition.
- PROSTHETIC DENTISTRY. Prothero, *Prosthetic Dentistry*; Wilson, *Dental Prosthetics*; Tench, *Professional Denture Service*.
- RADIOLOGY. Seth I. Hirsch, *Principles and Practice of Roentgenological Technique*.

ACADEMIC CALENDAR

1922-1923

1922

July 10, Monday. Twenty-third **Summer Session begins.**

(Registration in Summer Session begins Thursday, July 6.)

Aug. 1, Tuesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.

Aug. 18, Friday. Twenty-third **Summer Session ends.**

Sept. 11, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of later application may be granted on payment of a fee of \$6.

Sept. 18, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

Sept. 20, Wednesday. **Registration** (including the payment of fees) **begins.**

Registration in University Extension (including the payment of fees) begins.

Sept. 22, Friday. Registration in Barnard College (including the payment of fees) begins.

1922

Sept. 26, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 27, Wednesday. **Winter Session, 169th year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 28, Thursday. Classes begin.

Sept. 30, Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts. The privilege of later application may be granted up to October 21 on payment of a fee of \$6.

Oct. 2, Monday. Last day for filing applications for all degrees to be conferred in October, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy.

1922

- The privilege of later application may be granted on payment of a fee of \$6.
- Oct. 3, Tuesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
- Oct. 7, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts.
- Oct. 17, Tuesday. Stated meeting of University Council.
- Oct. 21, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts.
- Nov. 7, Tuesday. Election Day, holiday.
- Nov. 28, Tuesday. **Annual Thanksgiving Service** in St. Paul's Chapel.
- Nov. 30, Thursday, to December 2, Saturday, inclusive. Thanksgiving holidays.
- Dec. 4, Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- Dec. 19, Tuesday. Stated meeting of University Council.
- Dec. 20, Wednesday, to

1923

- Jan. 2, Tuesday, inclusive. Christmas holidays.

1923

- Jan. 7, Sunday. **Annual Commemoration Service** in St. Paul's Chapel.
- Jan. 11, Thursday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- Jan. 18, Thursday. Mid-year entrance examinations begin.
- Jan. 24, Wednesday. Mid-year examinations begin.
- Jan. 29, Monday. Mid-year examinations in University Extension begin.
- Feb. 1, Thursday. Registration in University Extension (including the payment of fees) begins.
Last day for filing applications for all degrees to be conferred in February, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.
- Feb. 3, Saturday. **Registration** (including the payment of fees) **begins**.
- Feb. 6, Tuesday. **Winter Session ends**. Registration ceases for all students entering Spring Session. The privilege of later registration may be granted up to March 3 for graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts on payment of a fee of \$6.
Last day for filing essays for the degrees of Master of Arts, Master of Science,

1923

and Master of Laws to be conferred in February.

Feb. 7, Wednesday. **Spring Session begins.**

Classes begin.

Feb. 12, Monday. Alumni Day.

Feb. 17, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts.

Feb. 20, Tuesday. Stated meeting of University Council.

Feb. 22, Thursday. Washington's Birthday, holiday.

Mar. 1, Thursday. Last day for filing applications for University Fellowships and Scholarships.

Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.

Last day for filing applications for deficiency and special examinations except in the School of Law. The privilege of later application may be granted on payment of a fee of \$6.

Mar. 3, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts.

Mar. 29, Thursday, to Apr. 2, Monday, inclusive. Easter holidays.

Apr. 3, Tuesday. Last day for filing applications for examination for the degree of Doctor of

1923

Philosophy to be conferred in June.

Apr. 16, Monday. Last day for filing applications for all degrees to be conferred in June, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.

Apr. 17, Tuesday. Stated meeting of University Council.

May 1, Tuesday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.

Last day for filing applications for scholarships in the Schools of Law, Applied Science, and Architecture.

May 21, Monday. Final examinations for all courses begin.

May 23, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.

May 30, Wednesday. Memorial Day, holiday.

June 3, Sunday. **Baccalaureate Service.**

June 4, Monday. Class Day.

June 6, Wednesday. **Commencement Day.**

June 13, Wednesday. **Spring Session ends.**

June 18, Monday. Entrance examinations begin.

July 9, Monday. **Twenty-fourth Summer Session begins.** (Registration in Summer Session begins Thursday, July 5.)

1923

Aug. 1, Wednesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.

Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.

Aug. 17, Friday. Twenty-fourth **Summer Session ends.**

Sept. 10, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of later application may be granted on payment of a fee of \$6.

Sept. 17, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

Sept. 19, Wednesday. **Registration** (including the payment of fees) **begins.**

1923

Registration in University Extension (including the payment of fees) begins.

Sept. 21, Friday. Registration in Barnard College (including the payment of fees) begins.

Sept. 25, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 26, Wednesday. **Winter Session 170th year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1923-1924

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY

Columbia University Bulletin of Information

Twenty-third Series, No. 50

September 15, 1923

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1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C.N.P.—8000—1923.

NOTICE OF MERGER

On July 1, 1923, the College of Dental and Oral Surgery of New York was combined with the School of Dentistry of Columbia University, the institution thereafter to be called The School of Dental and Oral Surgery of Columbia University. For further particulars, see p. 15.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 302 East 35th Street; telephone Murray Hill 9037.



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1911

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1923-1924

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President of the University

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WILLIAM DARRACH, M.D. *Dean of the School of Medicine*
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ADOLPH BERGER *Assistant Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Associate Oral Surgeon to Vanderbilt Clinic.
CHARLES F. BODECKER *Assistant Professor of Dental Histology*
and Embryology
D.D.S., University of Buffalo, 1900.
OSCAR J. CHASE, JR. *Associate Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1905.
JOHN W. DICKINSON *Professor of Prosthetic Dentistry*
D.M.D., Harvard University Dental School, 1901.

- HENRY S. DUNNING** *Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1904; M. D., Columbia, 1911; B. S., New York University, 1915.
Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; Visiting Oral Surgeon, Presbyterian Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear and Throat Hospital; Consulting Oral Surgeon, St. Luke's Hospital; Consulting Oral Surgeon, Roosevelt Hospital; Consulting Oral Surgeon, St. Vincent's Hospital; Attending Oral Surgeon, New York Hospital; Attending Oral Surgeon, Reconstruction Hospital.
- WILLIAM B. DUNNING** *Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1895.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital Psychiatric Institute, Ward's Island.
- CHARLES M. FORD** *Associate Professor of Dental Anatomy and Histology*
A.B., Hamilton College, 1885; M. A., 1888; M.D., New York University, 1888.
- BERN B. GALLAUDET** *Assistant Professor of Anatomy*
A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
Consulting Surgeon, Bellevue Hospital.
- FREDERICK PARKER GAY** *Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901.
- WILLIAM J. GIES** *Professor of Biological Chemistry*
B.S., Pennsylvania College, 1893; M.S., 1896; Sc.D., 1914; Ph.B., Yale, 1894; Ph.D., 1897.
Consulting Chemist, New York Botanical Garden; Member of the Faculties of the New York College of Pharmacy and the New York Teachers College; Pathological Chemist, First Division Bellevue Hospital; Director of Biochemical Research under the auspices of the National, New York State and New York City Dental Societies.
- HENRY W. GILLET** *Professor of Theory and Practice of Dentistry*
D.M.D., Harvard University Dental School, 1885.
- WILLIAM W. HERRICK** *Assistant Clinical Professor of Medicine*
A.B., Yale, 1902; M.D., 1905.
Assistant Physician, Roosevelt Hospital; Sloane Hospital; Consulting Physician, Babies', Nursery & Child's and Sharon, Conn., Hospital.
- ANNA V. HUGHES** *Professor of Preventive Dentistry*
D.M.D., Tufts College Dental School, 1909.
- GEORGE S. HUNTINGTON** *Professor of Anatomy*
A.B., Trinity, 1881; A.M., 1884; M.D., Columbia, 1884; Sc.D., 1904; LL.D., Jefferson Medical College, 1907.
- HAROLD THOMAS HYMAN** *Assistant Professor of Pharmacology*
A.B., Columbia, 1915; M.D., 1917
- JAMES W. JOBLING** *Professor of Pathology*
M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical College, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- FREDERICK McNAB JOHNSON** *Associate Professor of Physiology*
B.M., University of Toronto, 1916.
- WILLIAM C. JOHNSON** *Assistant Professor of Pathology*
A.B., Williams, 1905; M.D., Columbia, 1909.
Assistant Visiting Pathologist, Presbyterian Hospital; Attending Pathologist, Sloane Hospital.

- CHARLES H. LARGE *Associate Professor of Prosthetic Dentistry*
D.D.S., University of Pennsylvania, 1921.
- CHARLES C. LIEB *Associate Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
- EDGAR GRIM MILLER, JR. *Assistant Professor of Biological Chemistry*
B.S., Gettysburg, 1911; Ph.D., Columbia, 1913.
- VETHAKE E. MITCHELL *Assistant Professor of Prosthetic Dentistry*
D.D.S., University of Pennsylvania, 1892.
- EDWIN J. NESTLER *Assistant Professor of Operative Dentistry*
D.D.S., University of Pennsylvania, 1911.
- BISSELL B. PALMER, JR. *Associate Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1910.
Attending Oral Surgeon, Hahnemann Hospital.
- ALWIN M. PAPPENHEIMER *Associate Professor of Pathology*
A.B., Harvard, 1898; M.D., Columbia, 1902.
Associate Visiting Pathologist, Presbyterian Hospital.
- DOUGLAS B. PARKER *Assistant Professor of Oral Surgery*
M.D., Long Island College Hospital Medical School, 1912; D.D.S., University of Pennsylvania, 1914.
Associate Surgeon, Long Island College Hospital; Instructor, Surgical Medical School, Long Island College Hospital.
- EDWARD H. RAYMOND, JR. *Professor of Oral Pathology and Bacteriology*
A.B., Columbia, 1900; D.D.S., New York College of Dentistry, 1903.
Dental Surgeon, Lying-in Hospital.
- WORTHINGTON S. RUSSELL *Associate Professor of Oral Pathology*
M.D., New York University, 1893.
- MORRIS I. SCHAMBERG *Professor of Clinical Oral Surgery*
D.D.S., University of Pennsylvania, 1896; M.D., Medico-Chirurgical College, 1898.
- J. CLAYTON SHARP *Associate Professor of Dental Anatomy*
M.D., Columbia, 1901.
- MARTIN C. TRACY *Assistant Professor of Prosthetic Dentistry*
D.M.D., Tufts College, 1900.
Visiting Dental Surgeon, Presbyterian Hospital.
- WILLIAM D. TRACY *Assistant Professor of Operative Dentistry*
D.D.S., University of Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- CLARENCE T. VAN WOERT *Assistant Professor of Prosthetic Dentistry*
D.D.S., Buffalo, 1905.
- FRANK T. VAN WOERT *Director and Professor of Clinical Dentistry*
M.D.S., New York State University, 1890.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital; Psychiatric Institute, Ward's Island. Consulting Dental Surgeon, Brooklyn Hospital.
- DELANCY W. WARD *Associate Professor of Biological Chemistry*
Ph.B., Columbia, 1888, Ph.D., 1895.

ALBERT M. WILBOR *Assistant Professor of Prosthetic Dentistry and
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D.D.S., Buffalo, 1902.

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GEORGE J. SCHREIBER, JR., D.D.S. . . . *Lecturer in Prosthetic Dentistry*

JOSEPH SCHROFF, B.S., M.D., D.D.S.	<i>Lecturer in Operative Dentistry</i>
ROBERT F. SHELDON, D.M.D.	<i>Lecturer in Prosthetic Dentistry</i>
WILLIAM W. SHEPARD, D. D. S.	<i>Lecturer in Operative Dentistry</i>
CHARLES G. SIEBERT, D.D.S..	<i>Assistant in Operative Dentistry</i>
ROBERT H. SNEDAKER, D.D.S.	<i>Assistant in Operative Denistry</i>
RICHARD H. STUCKLEN, D.M.D.	<i>Lecturer in Operative Dentistry</i>
PHILIP R. SUESKIND, D. D. S.	<i>Assistant Superintendent, Operative Infirmary</i>
PAUL S. TARLER, D.D.S..	<i>Assistant in Operative Dentistry</i>
HAROLD M. THROOP, D.D.S.	<i>Assistant Superintendent, Prosthetic Infirmary</i>
J. FRANK WYNN, D.D.S.	<i>Assistant in Oral Surgery</i>

CLINICAL STAFF, PRESBYTERIAN HOSPITAL

WILLIAM D. TRACY, D.D.S.	<i>Director of the Dental Service</i>
WILLIAM B. DUNNING, D.D.S.	<i>Visiting Dental Surgeon</i>
MARTIN C. TRACY, D.M.D.	<i>Visiting Dental Surgeon</i>
ANNA V. HUGHES, D.M.D.	<i>Visiting Dental Surgeon</i>
HENRY S. DUNNING, M.D., D.D.S.	<i>Visiting Oral Surgeon</i>
ARTHUR S. MACMILLAN, D.D.S.. . . .	<i>Assistant Visiting Dental Surgeon</i>
HOWARD T. APPLGATE, D.D.S.	<i>Assistant Visiting Dental Surgeon</i>
ROBERT H. SNEDAKER, D.D.S.	<i>Assistant Visiting Dental Surgeon</i>
CHARLES HATTAUER, D.D.S.	<i>Assistant Visiting Dental Surgeon</i>
ROBERT E. GILLIE, D.D.S.	<i>Assistant Visiting Dental Surgeon</i>
CHARLES C. MORRISON, D.D.S.	<i>Assistant Visiting Dental Surgeon</i>
PAUL S. TARLER, D.D.S..	<i>Assistant Visiting Dental Surgeon</i>
CHARLES W. HLAVAC, D.D.S.	<i>Assistant Visiting Dental Surgeon</i>
EDMUND BARACH, D.D.S.	<i>Assistant Visiting Dental Surgeon</i>
FRANCIS S. MCCAFFREY, D.D.S.	<i>Assistant Visiting Oral Surgeon</i>
JOSEPH SCHROFF, M.D., D.D.S.. . . .	<i>Assistant Visiting Oral Surgeon</i>
FRANK J. WYNN, D.D.S.	<i>Assistant Visiting Oral Surgeon</i>
WILLIAM S. HOPKINS, D.D.S.. . . .	<i>Assistant Visiting Oral Surgeon</i>
N. HENRY LARSEN, D.D.S.. . . .	<i>Assistant Visiting Oral Surgeon</i>
HARRY MULHAUS	<i>Roentgenologist</i>
ALTA L. CLARK	<i>Dental Hygienist</i>
ELIZABETH C. BIRMINGHAM	<i>Dental Hygienist</i>
BEATRICE M. EDWARDS	<i>Dental Hygienist</i>

COMMITTEES

Organization

Professors H. S. DUNNING (Chairman), GIES, RAYMOND and W. B. DUNNING

Instruction and Publication

Professors W. B. DUNNING (Chairman), WAUGH, and RAYMOND

Research

Professors GIES (Chairman), RAYMOND, and W. D. TRACY

Library and Museum

Professor CHASE (Chairman), Drs. MACDONALD and DAVENPORT

GENERAL STATEMENT

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws; the College of Physicians and Surgeons with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic

requirements which may be fulfilled only upon days set apart by their church for religious observance, should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; The School of Dental and Oral Surgery, 302 East Thirty-fifth Street; the College of Physicians and Surgeons, 437 West Fifty-ninth Street; the College of Pharmacy, 115 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees to the Bursar. Students registering late are charged an additional fee and are held accountable for the absences thus incurred.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at this same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

GRADUATION

Diplomas are issued at Commencement and in February and October, upon the completion of the requirements for a degree.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

FEEs

Each student in the University will be called upon to pay three necessary fees. He will pay each year a university fee, a tuition fee, and, in the year of graduation, a graduation examination fee, payable upon application for the degree. The university and tuition fees are payable semi-annually in advance, and no reduction is made for late registration. Under the regulations, the privileges of the University are withheld from the student delinquent in the payment of fees. The fees to be paid by students are subject to change at any time at the discretion of the Trustees.

The term "point," upon which tuition fees are based, signifies work requiring attendance equivalent to one hour weekly on lectures or recitations, or a correspondingly longer period in laboratory, drafting room, or shop. The point value of each course is given in the *Announcements* of the several schools.

The University fee and the examination fee are not subject to rebate. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar. When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

The Academic Calendar gives the ultimate dates for the completion of registration and for filing applications for admission, or deficiency or special examinations, or for a degree, without the payment of an additional fee. An examination to remove a deficiency in course or in entrance requirements, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like, is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals beyond this allowance; and service in washing apparatus, or work by a mechanic.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

DEPOSITORY FOR STUDENTS' FUNDS

For the convenience and protection of students while in residence at the University, the Bursar is prepared to receive funds for deposit, subject to the printed rules and regulations, copies of which may be obtained at his office upon request.

There is no charge for this service other than the exchange of out-of-town checks and drafts.

Personal checks will not be cashed by the University or credit allowed until the money has actually been received from the bank on which the check is drawn. New York drafts, money orders, and travellers' checks may be deposited for collection and withdrawals allowed when the cash is received. Students should provide themselves preferably with money orders, bank drafts on New York, or travellers' checks for the amount of their expenses, and are advised to open an account with the University on registration.

LIBRARY

The General Library of the University contains about 835,000 volumes, exclusive of unbound pamphlets and doctoral dissertations. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, the Bryson Library of Teachers College, and the libraries of the College of Physicians and Surgeons and the College of Pharmacy are all available to students of the University.

RESIDENCE HALLS

There are three residence halls for men on South Field: Hartley and Livingston with 300 rooms each, and Furnald Hall with 282 rooms. Morris and Tompkins Halls situated on Claremont Avenue in immediate proximity to the Campus. Whittier, Bancroft and Seth Low Halls, maintained by Teachers College, and Brooks and John Jay Halls, maintained by Barnard College, are dormitories for women. The University Commons, in University Hall, provides board at reasonable rates.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination advice is given as to the kind and amount of exercise best adapted to his needs.

Students Hall, of Barnard College, and the Thompson Memorial Building, of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at

this time in any school of the University, with the exception of the School of Medicine, the College of Pharmacy, the School of Dental and Oral Surgery and the Summer Session.

MEDICAL SERVICE

The University Medical Officer, Dr. McCastline, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. Dr. McCastline, as University Physician, and the members of his staff hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Physician.

STUDENT ASSISTANCE

The University, through the Secretary of Appointments, endeavors to give to students who need it the opportunity to earn enough for partial support and to extend assistance in other ways. No prospective student, however, should come to Columbia expecting to depend entirely or even largely upon the assistance of the University, and every student should be prepared to meet at least the expenses of the first Session—approximately \$500.

BOOK STORE

The Columbia University Press Bookstore, under direct University management, located in the building of the School of Journalism, with entrances at 2960 Broadway and from South Field, supplies students and officers with books and stationery at stated discounts from list prices. The Columbia Law Review also maintains a bookstore, for law books only, in Kent Hall.

SCHOOL OF DENTISTRY

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the school became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquires two large and well-equipped buildings, at 302-306 East Thirty-fifth Street, and 309-315 East Thirty-fourth Street. These buildings are adjacent, connected by covered passageways, and are designed to meet the requirements of a modern dental school. At the date of transfer 311 students were registered in the College of Dental and Oral Surgery, and of these students the present junior and senior classes were matriculated on high school certificates, the freshmen and sophomores on the basis of one year of predental college work.

During the next four years dating from September, 1923, these students and all other students in dentistry admitted by Columbia University, will meet in the same classes, and receive the standard instruction of this School. Columbia University will give the degree of Doctor of Dental Surgery to those students registered, before the coalition, in the College of Dental and Oral Surgery who continue in good standing, who fulfill all requirements of the laws of the State of New York, and who satisfactorily fulfill the requirements of the course as established in Columbia University.

The buildings newly acquired will provide ample space and equipment for all students in Dentistry, the Advanced Courses in Dentistry, and the course (for women) in Oral Hygiene.

It is the purpose of the School of Dental and Oral Surgery to combine in the highest degree practicable a sound knowledge of the fundamentals of medicine with adequate training in the technical procedures of dental science and art. Two years of college work, including certain specified subjects, are required for admission and the course in dentistry covers four years, averaging each over one thousand hours.

On the completion of his second year the student who has had two years of Collegiate training may be a candidate for the degree of Bachelor of Science in Dentistry; on completion of his fourth year, the degree of Doctor of Dental Surgery. Students who elect the combined courses (see p. 16) will receive the degree of Bachelor of Arts.

The students of the School enjoy all the privileges open to members of any other department of the University. They may live in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

Advanced courses in dentistry for practitioners are also conducted in the laboratory and infirmaries at 309-315 East Thirty-fourth Street. These courses cover the subjects of oral diagnosis including radiology, anesthesia, exodontia, plate prosthesis, dental ceramics, cast gold inlay, root canal technic, periodontia and removable bridgework, and are given under the educational control of the Administrative Board of the School of Dentistry. For full information address Advanced Courses in Dentistry, 309-315 East Thirty-fourth Street.

Courses in oral hygiene, offered by the University under the direction of the Administrative Board, are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. Full information may be obtained by addressing Professor Anna V. Hughes, at 309-315 East Thirty-fourth Street.

REQUIREMENTS FOR ADMISSION

Application. Students should apply in the spring, if possible, and may use Summer Session courses at Columbia University or elsewhere to make up deficiencies. All communications should be addressed to School of Dental and Oral Surgery, 302 East Thirty-fifth Street, New York City. All applications should be accompanied by the sum of twenty-five cents, to defray the cost of the dental student's certificate, as required by the laws of the state.

The requirements for admission to the School of Dentistry include the following subjects, to be taken in college: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and one year of either French or German I.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4* or *6-7*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Upon receiving 72 points in Columbia College, which is usually possible in two years, a student may take studies in the School of Dentistry provided he can satisfy the stated requirements for admission thereto and may receive the B. S. degree on the recommendation of that School upon the satisfactory completion of two years of professional study. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred. Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Combined Courses—Attention of students who propose to enter the School of Dentistry is called to the program of studies in Columbia College which offers an

opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may in his fourth year take studies in the School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

REGISTRATION

The academic year of 1923-1924 begins Wednesday, September 26, 1923, and continues until June 11, 1924. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September. Students will be required to register personally in the office of the Director of the School, 302 East 35th street, on a blank provided for the purpose.

SUMMARY OF FEES

The following fees are prescribed by statute:

A. *University Fee:*

For all students for each Session or any part thereof \$6

B. *Tuition Fee:*

For all students per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed for a particular course 8

The prescribed courses in the School of Dentistry for the purpose of determining tuition fee shall be deemed to be twenty points in the Winter Session, and twenty points in the Spring Session, for each of the four years.

C. *Examination Fee:*

For all degree 20
For all certificate 10

D. *Privileges:*

1. Late registration or application 6
2. Deficiency and special examinations 6
With a maximum fee for examinations in a single series of 30

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.

E. *Rebates:*

1. The University fee (A) and the Examination fee (C) are not subject to rebate.
2. After the last day of the period provided for change of course, as announced in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a *pro rata* return of fees may be authorized by the Registrar.

Deposits—A deposit of \$25.00 will be required in the first year to cover material and breakage in the laboratories.

Lockers—Locker space will be assigned to students at a fee of \$1.00 for each academic year.

Fees for Repeated Courses—Students obliged to repeat the work of any year are required to pay a tuition fee of \$8.00 per point for each subject repeated.

EXAMINATIONS AND STANDING

Examinations are held in January and at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See fall examination calendar.)

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

A student's advancement to the work of a succeeding year is dependent upon the satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the Director of the School.

CONDITIONS FOR ADVANCEMENT

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.
2. A student who fails in two or more of his courses at the end of any academic year is automatically suspended, pending the action of the Administrative Board.
3. A student who fails in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.
4. No student is allowed more than five years in which to complete the professional work for his degree.

REQUIREMENTS FOR ADMISSION TO ADVANCED STANDING

Admission to Advanced Standing—In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. Students seeking advanced standing will be rated in the class for which they have completed all the prerequisites.

Admission of Special Students—Graduates in dentistry or students who desire to pursue special courses without graduation may register as special students, after approval by the head of the department conducting the courses. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of Doctor of Dental Surgery.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have been begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address Mr. Avery W. Skinner, Director of Examinations and Inspections Division, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

DEPARTMENTAL STATEMENTS

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., in their first and second years, to candidates for the degree of A.B. in Columbia College, to candidates for the degree of A.M. or Ph.D., and to graduates in dentistry and medicine. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years.

The list of the required text-books and necessary individual equipment will be furnished at the time of registration, or earlier upon request. See list of books recommended at p. 24. Standard books for collateral reading may be obtained in the library.

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences, arranged with the object of correlating such new material with that of the standard text-books.

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

Anatomy

Anatomy 101-102—General histology and embryology. First year 5 hours per week; 2 points each Session. Professors SHARP and FORD.

M., 9 a. m.—12 m.; F., 9—11 a. m.

Anatomy 103-104—Anatomy of the extremities, preliminary visceral anatomy. Professors HUNTINGTON, GALLAUDET, SHARP and FORD and Dr. CLEVELAND.

Tu., Th., and S., 2-6 p. m.; Tu. and Th., 12 m.—1 p. m.

Anatomy 105-106—Anatomy of the head, abdomen, and thorax. Second year; 12 hours per week, 4 points each Session. Professors HUNTINGTON, GALLAUDET, SHARP and FORD and Dr. CLEVELAND.

M., W. and F., 2-6 p. m.; Tu. and Th., 12 m.—1 p. m.

Bacteriology

Bacteriology 101—General bacteriology. Second year; 6 hours lectures and 9 hours laboratory per week, 6 points Winter Session. Professors GAY, RAYMOND, Jr., and PARKER.

Laboratory, M., Tu. and F., 9 a. m.—12 m., or W., Th. and S., 9 a. m.—12 m.

Lectures, M., W., F. and S., 12 m.—1 p. m.

Biological Chemistry*(Nutrition)*

Biological chemistry 101-102—General physiological chemistry. Course that includes the elements of normal nutrition and dietetics. First year; 1 hour lecture, 1 hour recitation, and 6 hours laboratory per week; 3 points each Session. Professors GIES, MILLER, JR., and WARD, Drs. KAHN and FRANCES KRASNOW, and Mr. KARSHAN and assistants.

Lecture, Tu., 11-12 a. m.

Recitation, Th., 11-12 a. m.

Laboratory, W. and S., 10 a. m.—1 p. m.

Crown and Bridgework

Crown and bridgework 201-202—Third year; 2 hours lectures and recitations, 3 hours laboratory per week; 2½ points each Session. Professors LARGE, C. T. VAN WOERT and assistants.

Dental Histology and Embryology

Dental histology and embryology 201-202—Third year; 2 hours lectures and recitations per week Winter Session; 1 hour lecture and 3 hours laboratory work per week Spring Session; 1½ points each Session. Professor BODECKER.

Operative Dentistry

Operative dentistry 101-102—Dental anatomy. First year; 1 hour lecture, 3 hours laboratory per week; 2 points each Session. Dr. DIAMOND and assistants.
Lecture, W., 9-10 a. m.; laboratory, Tu. and Th., 9-11 a. m.

Operative dentistry 103-104—Second year; 2 hours lectures per week; 4½ hours laboratory and infirmary per week; 3 points each Session. Dr. CLONEY and assistants.

Operative dentistry 201-202—Third year; 1 hour lecture, 6 hours infirmary per week; 3½ points each Session. Professor CHASE, Jr., and assistants.

Operative dentistry 203-204—Fourth year; 2 hours lectures; 12 hours infirmary per week; 6 points each Session. Professors W. B. DUNNING, GILLET, CHASE, Jr., and assistants.

Operative dentistry 205—History, ethics, economics, and management of dental practice. Fourth year; 10 hours lectures. Professor GILLET and assistants.

Oral Surgery

Oral surgery 201—Third year; 4 hours lectures and recitations per week; 2 points Winter Session. Professors H. S. DUNNING, SCHAMBERG, PALMER, Jr., PARKER and assistants.

Oral surgery 203-204—Fourth year; 5 hours recitation, and 2 hours clinic per week; 7 points each Session. Professors H. S. DUNNING, SCHAMBERG, PALMER, Jr., PARKER, and assistants.

Orthodontia

Orthodontia 201-202—Third year; 1 hour lecture, 1 hour laboratory per week; 2 points each Session. Professor WAUGH and assistants.

Orthodontia 203-204—Fourth year; 2½ hours infirmary per week; 1 point each Session. Professor WAUGH and assistants.

Pathology

Pathology 201-202—General and special pathology, including experimental pathology. Professors JOBLING, PAPPENHEIMER, RUSSELL and W. C. JOHNSON, and assistants.

Laboratory, M., W., F. and S., 9 a. m.—1 p. m.

Pathology 203-204—Oral pathology. Fourth year; 2 hours lectures and recitations, 1 hour laboratory work per week each Session; 1½ points each Session. Professor RAYMOND, JR.

Pharmacology

Pharmacology 131—Pharmacology, pharmacy prescription writing and materia medica. Second year; 10 two-hour periods; 1 point Winter Session. Professors LIEB and RUSSELL and Drs. HIRSHFELD, HURD and HYMAN.

Pharmacology 231—Experimental pharmacology. Fourth year; 2 hours conference and 6 hours of laboratory work per week for 12 weeks; 3 points Winter Session. Professor LIEB and Drs. HIRSHFELD, HURD and HYMAN.

Pharmacology 233—Dental therapeutics and materia medica. Fourth year; 1 hour lecture and 1 hour conference per week; 1 point Winter Session. Professors LIEB and assistants.

Physical Diagnosis

Physical diagnosis 202—Fourth year; 6 hours, 10 weeks. 4 points Spring Session. Professor HERRICK and assistants.

Physiology

Physiology 101-102—Human physiology. Second year; 3 hours lectures, 2 hours demonstration, 1 hour recitation, and 4 hours laboratory per week; 4½ points each Session. Professors BURTON-OPITZ and F. M. JOHNSON and assistants.

Lectures, Tu., Th. and S., 9-10 a. m.

Demonstration, M., 2-4 p. m.

Laboratory, F., 2-6 p. m.

Recitation, F., 6-7 p. m.

Preventive Dentistry

Preventive dentistry 101—Oral hygiene. Second year; 2 hours lectures; 2 hours demonstration and practice per week; 2 points Winter Session. Professor ANNA V. HUGHES and assistants.

Preventive dentistry 203-204—Oral prophylaxis. Third year; 1 hour recitation; 3 hours demonstrations and practice per week Winter Session; 3 hours demonstrations and practice per week Spring Session. 2 points each Session. Professor HUGHES and assistants.

Preventive dentistry 206—Oral hygiene and prophylaxis. Fourth year; 2 hours demonstrations per week, supplemented by five lectures; 1 point Spring Session. Professor HUGHES and assistants.

Prosthetic Dentistry

Prosthetic dentistry 101-102—Principles of prosthetic technic. First year; 1 hour lecture, 10½ hours laboratory per week. 5½ points each Session. Professor WILBOR and assistants.

Lectures, M., 12 m.-1 p. m.; W., 2-5 p. m.

Laboratory, M., 1-5 p. m.; F., 1-5 p. m.

Prosthetic dentistry 103-104—Dental metallurgy. First year; 1 hour lecture and recitation, 1 hour demonstration and practical laboratory work per week; 1 point each Session. Mr. LINVILLE and assistants.

Prosthetic dentistry 105-106—Prosthetic technic. Second year; 1 hour lecture, 4 hours laboratory per week; 2 points each Session. Professor DICKINSON and assistants.

Lectures, 1 hour.

Laboratory, 4 hours.

Prosthetic dentistry 201-202—Third year; 1½ hours lectures and recitations, 6 hours laboratory per week; 3½ points each Session. Professors LARGE, C. T. VAN WOERT and assistants.

Prosthetic dentistry 203-204—Fourth year; 1 hour lecture and recitation per week; 5½ hours laboratory; 2½ points each Session. Professor DICKINSON, Drs. RUYL, Jr., and HASKELL.

Radiology

Radiology 201-202—Third year; 1 hour lecture and laboratory per week; ½ point each Session. Professors F. T. VAN WOERT and EDWIN J. NESTLER.

REFERENCE BOOKS

- ANATOMY. Cunningham; Piersol, *Human Anatomy*, Volumes 1 and 2, seventh edition; Black, *Dental Anatomy*.
- BACTERIOLOGY. Hiss and Zinsser, *Text-book of Bacteriology*.
- HISTOLOGY AND EMBRYOLOGY. Noyes, *Dental Histology*; *Histology and Histopathology of the Teeth*; Bailey, *Text-book of Histology*, 6th edition; Bailey and Miller, *Text-book of Embryology*, 4th edition.
- HYGIENE AND PREVENTIVE DENTISTRY. Fones, *Mouth Hygiene*, 2nd edition; Hiss and Zinsser, *Infection and Resistance*, last edition.
- OPERATIVE DENTISTRY. G. V. Black, *Operative Dentistry*, 3rd edition; M. L. Ward, *American Text-book of Operative Dentistry*; C. N. Johnson, *Text-book of Operative Dentistry*, 5th edition.
- ORAL SURGERY. Brophy, *Oral Surgery*; Blair, *Mouth and Jaw*; G. V. I. Brown, *Surgery of Oral Diseases*; Scodder, *Tumors of the Jaw*; Geo. B. Winter, *Exodontia*; Fisher and Reithmuller, *Dental Anesthesia*; Smith, *Block Anesthesia*; Thoma, *Oral Anesthesia*; Paluel J. Flagg, *The Art of Anesthesia*.
- PATHOLOGY. Endlemand and Wagner, *General and Dental Pathology*, Maccallum, *Text-book of Pathology*; Black, *Special Dental Pathology*; Wells, *Chemical Pathology*.
- PHARMACOLOGY. Required: *The Laboratory Guide*. Any one of the following text-books: Buckley, *Modern Dental Materia Medica, Pharmacology and Therapeutics*; Prinz, *Dental Materia Medica and Pharmacology*; Bastedo, *Materia Medica, Pharmacology and Therapeutics*; Cushny, *Pharmacology and Therapeutics*; Dixon, *Manual of Pharmacology*; Sollman, *Manual of Pharmacology*.
- PHYSIOLOGY. Burton-Opitz, *Text-book of Physiology*; Burton-Opitz, *Advanced Lessons in Practical Physiology*, 1921; Starling, *Human Physiology*, last edition. Baylis, *Principles of General Physiology*, last edition.
- PROSTHETIC DENTISTRY. Prothero, *Prosthetic Dentistry*; Turner, *American Text-Book of Prosthetic Dentistry*; Wilson, *Dental Prosthetics*; Tench, *Professional Denture Service*.
- RADIOLOGY. Seth I. Hirsch, *Principles and Practice of Roentgenological Technique*.

ACADEMIC CALENDAR

1923-1924

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| <p>1923</p> <p>July 9, Monday. Twenty-fourth Summer Session begins. (Registration in Summer Session begins Thursday, July 5.)</p> <p>Aug. 1, Wednesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.</p> <p>Aug. 17, Friday. Twenty-fourth Summer Session ends.</p> <p>Sept. 10, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of later application may be granted on payment of a fee of \$6.</p> <p>Sept. 17, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.</p> <p>Sept. 19, Wednesday. Registration (including the payment of fees) begins.
Registration in University Extension (including the payment of fees) begins.</p> <p>Sept. 21, Friday. Registration in Barnard College (including the payment of fees) begins.</p> | <p>1923</p> <p>Sept. 25, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.</p> <p>Sept. 26, Wednesday. Winter Session, 170th year, begins. Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.</p> <p>Sept. 27, Thursday. Classes begin.</p> <p>Sept. 29, Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts. The privilege of later application may be granted up to October 20 on payment of a fee of \$6.</p> <p>Oct. 1, Monday. Last day for filing applications for all degrees to be conferred in October, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy.</p> |
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1923

- The privilege of later application may be granted on payment of a fee of \$6.
- Oct. 2, Tuesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
- Oct. 6, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
Last day for registration in University Extension for students desiring credit.
- Oct. 16, Tuesday. Stated meeting of University Council.
- Oct. 20, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education and Practical Arts.
- Nov. 6, Tuesday. Election Day, holiday.
- Nov. 27, Tuesday. **Annual Thanksgiving Service** in St. Paul's Chapel.
- Nov. 29, Thursday, to December 1, Saturday, inclusive. Thanksgiving holidays.
- Dec. 3, Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- Dec. 18, Tuesday. Stated meeting of University Council.
- Dec. 22, Saturday, to

1924

- Jan. 7, Monday, inclusive. Christmas holidays.
- Jan. 13, Sunday. **Annual Commemoration Service** in St. Paul's Chapel.
- Jan. 23, Wednesday. Mid-year examinations begin.
- Jan. 28, Monday. Mid-year examinations in University Extension begin.
- Jan. 31, Thursday. Registration in University Extension (including the payment of fees) begins.
- Feb. 1, Friday. Last day for filing applications for all degrees to be conferred in February, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.
- Feb. 2, Saturday. **Registration** (including the payment of fees) **begins**.
- Feb. 5, Tuesday. **Winter Session ends**. Registration ceases for all students entering Spring Session. The privilege of later registration may be granted up to March 1, for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts on payment of a fee of \$6.
Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- Feb. 6, Wednesday. **Spring Session begins**.
Classes begin.
- Feb. 12, Tuesday. Alumni Day.

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Feb. 16, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.

Last day for registration in University Extension for students desiring credit.

Feb. 19, Tuesday. Stated meeting of University Council.

Feb. 22, Friday. Washington's Birthday, holiday.

Mar. 1, Saturday. Last day for filing applications for University Fellowships and Scholarships.

Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.

Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.

Mar. 10, Monday. Last day for filing applications for deficiency and special examinations except in the School of Law. The privilege of later application may be granted on payment of a fee of \$6.

Apr. 1, Tuesday. Last day for filing applications for examination for the degree of Doctor of Philosophy to be conferred in June.

Apr. 15, Tuesday. Last day for filing applications for all degrees to be conferred in June, except

1924

Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.

Stated meeting of University Council.

Apr. 17, Thursday, to April 21, Monday, inclusive. Easter holidays.

May 1, Thursday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.

Last day for filing applications for scholarships in the Schools of Law, Applied Science, and Architecture.

May 19, Monday. Final examinations for all courses begin.

May 21, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.

May 30, Friday. Memorial Day, holiday.

June 1, Sunday. **Baccalaureate Service.**

June 2, Monday. **Class Day.**

June 4, Wednesday. **Commencement Day.**

June 11, Wednesday. **Spring Session ends.**

June 16, Monday. Entrance examinations begin.

July 7, Monday. **Twenty-fifth Summer Session begins.**

(Registration in Summer Session begins Wednesday, July 2).

1924

Aug. 1, Friday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.

Aug. 15, Friday. **Twenty-fifth Summer Session ends.**

Sept. 8, Monday. Last day for filing applications for entrance examinations, and for advanced standing. The privilege of late application may be granted on payment of a fee of \$6.

Sept. 15, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

Sept. 17, Wednesday. **Registration** (including the payment of fees) **begins.**
Registration in University

1924

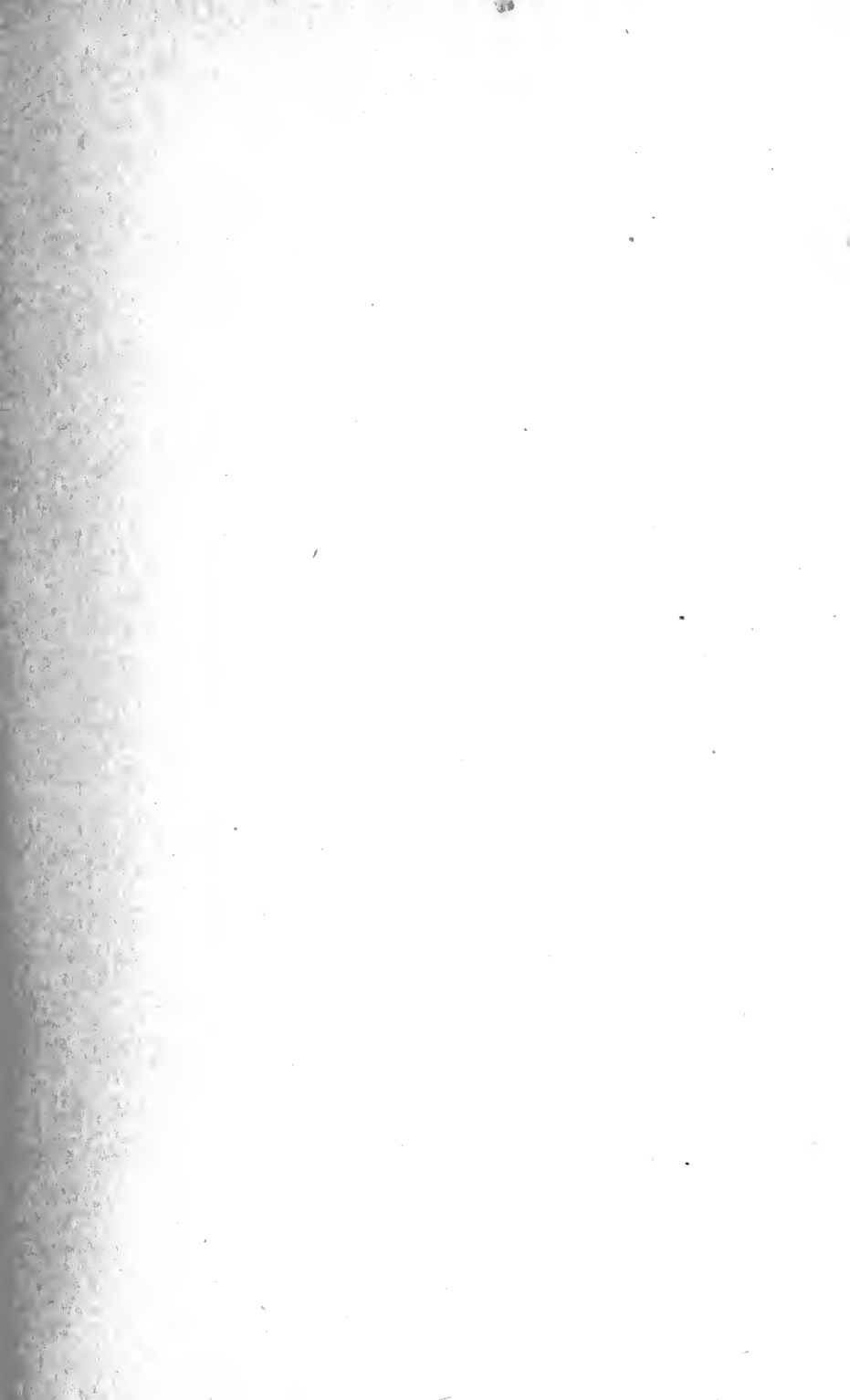
Extension (including the payment of fees) begins.

Sept. 19, Friday. Registration in Barnard College (including the payment of fees) begins.

Sept. 23, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 24, Wednesday. **Winter Session, 171st year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts. The privilege of later registration may be granted on payment of a fee of \$6.







Columbia University

Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1924-1925

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY

Columbia University Bulletin of Information

Twenty-fourth Series, No. 46

August 16, 1924

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, New York, under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the Annual Directory of Officers and Students, the University Bibliography and the list of Essays for the Master's Degree, are issued as Bulletins.

C.P.—8000—1924.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 302 East 35th Street; telephone Murray Hill 9037.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1924-1925

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY

OFFICERS OF THE SCHOOL OF DENTISTRY

1924-1925

NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.), Hon.D. (Paris)
President of the University

ADMINISTRATIVE BOARD

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WILLIAM DARRACH, M.D.....*Dean of the School of Medicine*
JOHN W. DICKINSON, D.M.D.....*Professor of Prosthetic Dentistry*
HENRY S. DUNNING, B.S., M.D., D.D.S.....*Professor of Oral Surgery*
JAMES CHIDESTER EGBERT, Ph.D.....*Director of University Extension*
HENRY W. GILLET, D.M.D.....*Professor of Operative Dentistry*

HONORARY DIRECTOR

WILLIAM CARR, A.M., M.D., D.D.S.

OFFICERS OF INSTRUCTION

ADOLPH BERGER.....*Assistant Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Associate Oral Surgeon to Vanderbilt Clinic.

CHARLES F. BODECKER.....*Associate Professor of Dental Histology*
D.D.S., University of Buffalo, 1900. *and Embryology*

RUSSELL BURTON-OPITZ.....*Lecturer in Physiology*
M.D., Chicago, 1895; B.S., 1898; M.S., 1902; Ph.D., 1905.

OSCAR J. CHASE, JR.....*Associate Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1905.

MATHER CLEVELAND.....*Associate in Anatomy*
A.B., Yale, 1911; A.M., 1914; M.D., Columbia, 1915.

THOMAS F. CLONEY.....*Assistant Professor of Operative Dentistry*
D.M.D., Harvard, 1912.

MOSES DIAMOND.....*Assistant Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1914.

JOHN W. DICKINSON.....*Professor of Prosthetic Dentistry*
D.M.D., Harvard, 1901.

- HENRY S. DUNNING.....*Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York University, 1915.
Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; New York Hospital; Reconstruction Hospital; Visiting Oral Surgeon, Presbyterian Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear and Throat Hospital; St. Luke's Hospital; Roosevelt Hospital and St. Vincent's Hospital.
- WILLIAM B. DUNNING.....*Professor of Theory and Practice of Dentistry*
D.D.S., New York College of Dentistry, 1895.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital Psychiatric Institute, Ward's Island.
- CHARLES M. FORD.....*Associate Professor of Anatomy and Histology*
A.B., Hamilton College, 1885; M.A., 1888; M.D., New York University, 1888.
- BERN B. GALLAUDET.....*Assistant Professor of Anatomy*
A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
Consulting Surgeon, Bellevue Hospital.
- FREDERICK PARKER GAY.....*Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901.
- WILLIAM J. GIES.....*Professor of Biological Chemistry*
B.S., Pennsylvania College, 1893; M.S., 1896; Sc.D., 1914; Ph.B., Yale, 1894; Ph.D., 1897.
Consulting Chemist, New York Botanical Garden; Member of the Faculties of the New York College of Pharmacy and the New York Teachers College; Pathological Chemist, First Division Bellevue Hospital; Director of Biochemical Research under the auspices of the National, New York State and New York City Dental Societies.
- HENRY W. GILLET.....*Professor of Operative Dentistry*
D.M.D., Harvard, 1885.
- FREDERICK G. GOODRIDGE.....*Associate in Biological Chemistry*
A.B., Harvard, 1897; M.D., Columbia, 1901; Ph.D., 1914.
- BENJAMIN HARROW.....*Associate in Biological Chemistry*
Chemist, Columbia, 1911; A.M., 1912; Ph.D., 1913.
- WILLIAM W. HERRICK.....*Assistant Clinical Professor of Medicine*
A.B., Yale, 1902; M.D., 1905.
Assistant Physician, Roosevelt Hospital; Sloane Hospital; Consulting Physician, Babies', Nursery & Child's and Sharon, Conn., Hospital.
- SAMUEL HIRSHFELD.....*Instructor in Pharmacology*
M.D., Columbia, 1918.
- ANNA V. HUGHES.....*Professor of Preventive Dentistry*
D.M.D., Tufts, 1909.
- GEORGE S. HUNTINGTON.....*Professor of Anatomy*
A.B., Trinity, 1881; A.M., 1884; M.D., Columbia, 1884; Sc.D., 1904; LL.D., Jefferson Medical College, 1907.
- HAROLD THOMAS HYMAN.....*Assistant Professor of Pharmacology*
A.B., Columbia, 1915; M.D., 1917.

- JAMES W. JOBLING.....*Professor of Pathology*
M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical College, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- ¹FREDERICK McNAB JOHNSON.....*Associate Professor of Physiology*
B.M., Toronto, 1916.
- WILLIAM C. JOHNSON.....*Assistant Professor of Pathology*
A.B., Williams, 1905; M.D., Columbia, 1909.
Assistant Visiting Pathologist, Presbyterian Hospital; Attending Pathologist, Sloane Hospital.
- MAX KAHN.....*Associate in Biological Chemistry*
M.D., Cornell, 1910; A.M., Columbia, 1911; Ph.D., 1912.
- MAXWELL KARSHAN.....*Assistant Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; M.A., Columbia, 1920.
- FRANCES KRASNOW.....*Instructor in Biological Chemistry*
B.S., Columbia, 1917; A.M., 1917.
- JOHN F. LANDON.....*Instructor in Pharmacology*
A.B., Yale, 1917; M.D., Columbia, 1921.
- CHARLES H. LARGE.....*Associate Professor of Prosthetic Dentistry*
D.D.S., Pennsylvania, 1921.
- LOUISE D. LARIMORE.....*Instructor in Pathology*
A.B., Wellesley, 1910; M.D., Woman's Medical College of Pennsylvania, 1915; A.M., Columbia, 1911.
- CHARLES C. LIEB.....*Associate Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
- CLARENCE P. LINVILLE.....*Lecturer in Metallurgy*
B.Sc., Ohio State, 1900; A.M., 1902.
- EDGAR GRIM MILLER, JR.....*Assistant Professor of Biological Chemistry*
B.S., Gettysburg, 1911; Ph.D., Columbia, 1913.
- CHARLES C. MORRISON.....*Instructor in Operative Dentistry*
D.D.S., New York College of Dentistry, 1921.
- EDWIN J. NESTLER.....*Assistant Professor of Radiology*
D.D.S., Pennsylvania, 1911.
- ALWIN M. PAPPENHEIMER.....*Associate Professor of Pathology*
A.B., Harvard, 1898; M.D., Columbia, 1902.
Associate Visiting Pathologist, Presbyterian Hospital.
- DOUGLAS B. PARKER.....*Assistant Professor of Oral Surgery*
M.D., Long Island College Hospital Medical School, 1912; D.D.S., Pennsylvania, 1914.
Associate Surgeon, Long Island College Hospital; Instructor, Surgical Medical School, Long Island College Hospital.

¹Absent on leave, 1924-1925.

- WORTHINGTON S. RUSSELL.....*Associate Professor of Oral Pathology*
M.D., New York University, 1893.
- JOSEPH SCHROFF.....*Assistant Professor of Oral Pathology*
B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
- J. CLAYTON SHARP.....*Associate Professor of Anatomy and Histology*
M.D., Columbia, 1901.
- MARTIN C. TRACY.....*Assistant Professor of Operative Dentistry*
D.M.D., Tufts, 1900.
Visiting Dental Surgeon, Presbyterian Hospital.
- WILLIAM D. TRACY.....*Assistant Professor of Operative Dentistry*
D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- CLARENCE T. VAN WOERT.....*Assistant Professor of Prosthetic Dentistry*
D.D.S., Buffalo, 1905.
- FRANK T. VAN WOERT.....*Director and Professor of Clinical Dentistry*
M.D.S., New York State University, 1890.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital;
Psychiatric Institute, Ward's Island. Consulting Dental Surgeon, Brooklyn Hospital.
- ¹DELANCEY W. WARD.....*Associate Professor of Biological Chemistry*
Ph.B., Columbia, 1888, Ph.D., 1895.
- LEUMAN M. WAUGH.....*Professor of Orthodontia*
D.D.S., Buffalo, 1900.
- ALBERT M. WILBOR.....*Associate Professor of Prosthetic Dentistry*
D.D.S., Buffalo, 1902. *and Superintendent, Prosthetic Infirmary*
- HORATIO B. WILLIAMS.....*Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905.
Special Consultant, Physiology, Presbyterian Hospital.
- JEROME M. ZIEGLER.....*Instructor in Pharmacology*
A.B., College of the City of New York, 1914; M.D., Columbia, 1918.

OTHER OFFICERS OF INSTRUCTION

- ADAMS BAILEY, D.D.S.....*Operative Dentistry*
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- CECIL G. FLETCHER, D.M.D.....*Operative Dentistry*
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- WHITTON R. HATFIELD, D.D.S.....*Prosthetic Dentistry*
- WILLIAM J. HOAG, D.D.S.....*Operative Dentistry*
- WILLARD J. HOLLINGSHEAD, D.D.S.....*Operative Dentistry*

¹Absent on leave, 1924-1925.

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C. FRANKLIN MACDONALD, D.M.D.....	<i>Operative Dentistry</i>
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ROBERT F. SHELDON, D.M.D.....	<i>Prosthetic Dentistry</i>
RICHARD H. STUCKLEN, D.M.D.....	<i>Operative Dentistry</i>

INFIRMARY AND LABORATORY ASSISTANTS

HERBERT HAIGH, D.D.S.....	<i>Superintendent Operative Infirmary</i>
EARL B. HOYT, D.D.S.....	<i>Assistant Superintendent Prosthetic Infirmary</i>
PHILIP R. SUESKIND, D.D.S.....	<i>Assistant Superintendent Operative Infirmary</i>
HAROLD M. THROOP, D.D.S.....	<i>Assistant Superintendent Prosthetic Infirmary</i>
GEORGE A. ABBOTT, D.D.S.....	<i>Prosthetic Dentistry</i>
JAMES C. ALLAN, D.D.S.....	<i>Orthodontia</i>
HAROLD R. APPLEBAUM, D.D.S.....	<i>Operative Dentistry</i>
THOMAS L. ASCHE, D.D.S.....	<i>Prosthetic Dentistry</i>
HENRY U. BARBER, JR., D.D.S.....	<i>Orthodontia</i>
GEORGE A. BECK, D.D.S.....	<i>Operative Dentistry</i>
SAMUEL BIRENBACH, D.D.S.....	<i>Oral Surgery</i>
ANNA ROSE BRUENN, D.D.S.....	<i>Operative Dentistry</i>
AARON CHURCH, D.D.S.....	<i>Operative Dentistry</i>
C. STERLING CONOVER, D.D.S.....	<i>Orthodontia</i>
THOMAS J. CONTE, D.D.S.....	<i>Operative Dentistry</i>
CHARLES L. CORBALIS, D.D.S.....	<i>Operative Dentistry</i>
SHERMAN W. CRAWFORD, D.D.S.....	<i>Operative Dentistry</i>
ARTHUR N. CROSS.....	<i>Crown and Bridgework</i>
ROBERT H. DINEGAR, M.D.....	<i>Physiology</i>
FRED S. DUNN, JR., B.S., D.D.S.....	<i>Pathology</i>
ROCCO FANELLI, B.S., M.A., Ph.D.....	<i>Metallurgy</i>
HAROLD FISCHER, D.D.S.....	<i>Oral Surgery</i>
NATHANIEL FREEMAN, D.D.S.....	<i>Pathology</i>
ROBERT E. GILLIE, D.D.S.....	<i>Operative Dentistry</i>
HAROLD GLADWIN, D.D.S.....	<i>Oral Surgery</i>
JULIUS GOLDBERG, D.D.S.....	<i>Prosthetic Dentistry</i>
THOMAS F. HANLON, M.D.....	<i>Physiology</i>
OTTO HOFFMAN, D.D.S.....	<i>Operative Dentistry</i>
AUGUSTUS B. HOLT, D.D.S.....	<i>Operative Dentistry</i>
WARREN S. HOUSTON, D.D.S.....	<i>Radiology</i>
HANNES HOVING, D.D.S.....	<i>Operative Dentistry</i>
ISIDORE JACOBS, D.M.D.....	<i>Operative Dentistry</i>
JOHN O'GORMAN LANE, D.D.S.....	<i>Oral Surgery</i>

HORST LEEDE, M.D.....	<i>Physiology</i>
ARTHUR J. MCMAHON, D.D.S.....	<i>Operative Dentistry</i>
SAMUEL MOHR, D.D.S.....	<i>Operative Dentistry</i>
SAMUEL MONASH, B.S., D.D.S.....	<i>Pathology</i>
FREDERICK C. NOLTE, D.D.S.....	<i>Oral Surgery</i>
H. WALTER O'NEILL, D.D.S.....	<i>Operative Dentistry</i>
WALTER W. PADWE, D.D.S.....	<i>Prosthetic Dentistry</i>
ISADORE PRESS, D.D.S.....	<i>Operative Dentistry</i>
GEORGE G. RAPP, D.D.S.....	<i>Operative Dentistry</i>
ISADORE ROSENBERG, D.D.S.....	<i>Prosthetic Dentistry</i>
PASTOR R. SAPINOSO, M.D.....	<i>Bacteriology</i>
LOUIS SAPORITO, D.D.S.....	<i>Operative Dentistry</i>
HERBERT SCHREIBER, D.D.S.....	<i>Operative Dentistry</i>
JEROME SCHWEITZER.....	<i>Oral Surgery</i>
JOSEPH P. SCOLA, D.D.S.....	<i>Operative Dentistry</i>
CHARLES SCUDDER, D.D.S.....	<i>Operative Dentistry</i>
LEO STERN, D.D.S.....	<i>Oral Surgery</i>
DRAHOMIR G. URSINI, D.D.S.....	<i>Operative Dentistry</i>
JOHN C. VANDERVOORT, D.D.S.....	<i>Operative Dentistry</i>
ROBERT M. WINSLOW, D.D.S.....	<i>Prosthetic Dentistry</i>

ASSISTANTS

HOWARD T. APPLGATE, D.D.S.....	<i>Radiology</i>
WILLIAM A. ARATA, D.D.S.....	<i>Oral Surgery</i>
ROWLAND G. FREEMAN, JR., Ph.B., M.D.....	<i>Biological Chemistry</i>
CHARLES HATTAUER, D.D.S.....	<i>Operative Dentistry</i>
CHILSON B. HAVILAND, B.Sc.....	<i>Operative Dentistry</i>
CHARLES W. HLAVAC, D.D.S.....	<i>Oral Surgery</i>
WILLIAM S. HOPKINS, D.D.S.....	<i>Oral Surgery</i>
ROMOLA L. KEELER (Mrs.), A.B., A.M.....	<i>Bacteriology</i>
N. HENRY LARSON, D.D.S.....	<i>Oral Surgery</i>
FRANCIS S. McCAFFREY, D.D.S.....	<i>Oral Surgery</i>
ARTHUR S. MACMILLAN, D.D.S.....	<i>Operative Dentistry</i>
HANNAH PIERSON, A.B., M.D.....	<i>Pathology</i>
ROBERT H. SNEDAKER, D.D.S.....	<i>Operative Dentistry</i>
PAUL S. TARLER, D.D.S.....	<i>Operative Dentistry</i>
FRANK J. WYNN, D.D.S.....	<i>Oral Surgery</i>

CLINICAL STAFF, PRESBYTERIAN HOSPITAL

WILLIAM D. TRACY, D.D.S.....	<i>Director of the Dental Service</i>
WILLIAM B. DUNNING, D.D.S.....	<i>Visiting Dental Surgeon</i>
ANNA V. HUGHES, D.M.D.....	<i>Visiting Dental Surgeon</i>
MARTIN C. TRACY, D.M.D.....	<i>Visiting Dental Surgeon</i>
FRANK T. VAN WOERT, M.D.S.....	<i>Visiting Dental Surgeon</i>
HENRY S. DUNNING, M.D., D.D.S.....	<i>Visiting Oral Surgeon</i>
HOWARD T. APPLGATE, D.D.S.....	<i>Assistant Visiting Dental Surgeon</i>
WILLIAM A. ARATA, D.D.S.....	<i>Assistant Visiting Dental Surgeon</i>

CHARLES HATTAUER, D.D.S.....	Assistant Visiting Dental Surgeon
CHARLES W. HLAVAC, D.D.S.....	Assistant Visiting Dental Surgeon
ARTHUR S. MACMILLAN, D.D.S.....	Assistant Visiting Dental Surgeon
CHARLES C. MORRISON, D.D.S.....	Assistant Visiting Dental Surgeon
ROBERT H. SNEDAKER, D.D.S.....	Assistant Visiting Dental Surgeon
PAUL S. TARLER, D.D.S.....	Assistant Visiting Dental Surgeon
WILLIAM S. HOPKINS, D.D.S.....	Assistant Visiting Oral Surgeon
N. HENRY LARSON, D.D.S.....	Assistant Visiting Oral Surgeon
FRANCIS S. MCCAFFREY, D.D.S.....	Assistant Visiting Oral Surgeon
JOSEPH SCHROFF, M.D., D.D.S.....	Assistant Visiting Oral Surgeon
FRANK J. WYNN, D.D.S.....	Assistant Visiting Oral Surgeon
HARRY MULHAUS.....	Roentgenologist
ELIZABETH C. BIRMINGHAM.....	Dental Hygienist
ALTA L. CLARK.....	Dental Hygienist
BEATRICE M. EDWARDS.....	Dental Hygienist

COMMITTEES

Organization

Professors H. S. DUNNING (Chairman), GIES, DICKINSON and W. B. DUNNING

Instruction and Publication

Professors W. B. DUNNING (Chairman), WAUGH and DICKINSON

Research

Professors GIES (Chairman), BODECKER and SCHROFF

Library and Museum

Professor CHASE (Chairman), Drs. MACDONALD and DAVENPORT

Student Conference

Professors WAUGH (Chairman), H. S. DUNNING, DICKINSON and SHARP and one student from each class.

UNIVERSITY OFFICERS OF ADMINISTRATION

WILLIAM H. CARPENTER, Ph.D.....	Provost of the University
FRANK D. FACKENTHAL, A.B.....	Secretary of the University
ADAM LEROY JONES, Ph.D.....	Director of University Admissions
EDWARD J. GRANT, A.B.....	Registrar of the University
CHARLES S. DANIELSON.....	Bursar of the University
HENRY LEE NORRIS, M.E.....	Superintendent of Buildings and Grounds
REV. RAYMOND C. KNOX, S.T.D.....	Chaplain of the University
GEORGE L. MEYLAN, M.D.....	Medical Director of the Gymnasium
WILLIAM H. MCCASTLINE, M.D.....	University Medical Officer
HERBERT B. HOWE, B.D., A.M.....	Director of Earl Hall

GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering and Chemistry, with courses leading to the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic

requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the School of Dental and Oral Surgery, 302 East Thirty-fifth Street; the College of Physicians and Surgeons, 437 West Fifty-ninth Street; the College of Pharmacy, 113-119 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees to the Bursar. Students registering late are charged an additional fee and are held accountable for the absences thus incurred.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

GRADUATION

Diplomas are issued at Commencement and in February and October, or, in the case of the Ph.D. degree, upon the completion of the requirements.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar.

The Dean or Director of the School or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

FEES

Each student in the University will be called upon to pay three necessary fees. He will pay each year a University fee, a tuition fee, and, in the year of graduation, a graduation examination fee, payable upon application for the degree. The University and tuition fees are payable semi-annually in advance, and no reduction is made for late registration. Under the regulations, the privileges of the University are withheld from a student delinquent in the payment of fees. The fees to be paid by students are subject to change at any time at the discretion of the Trustees.

The term "point," upon which tuition fees are based, signifies work requiring attendance equivalent to one hour weekly on lectures or recitations, or a correspondingly longer period in laboratory, drafting room, or shop. The point value of each course is given in the *Announcements* of the several schools.

The University Fee and the Examination Fee are not subject to rebate. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar. When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

The Academic Calendar gives the ultimate dates for the completion of registration and for filing applications for admission, or deficiency or special examinations, or for a degree, without the payment of an additional fee. An examination to remove a deficiency in course or in entrance requirements, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like, is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals beyond this allowance; and service in washing apparatus, or work by a mechanic.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

DEPOSITORY FOR STUDENTS FUNDS

For the convenience and protection of students while in residence at the University, the Bursar is prepared to receive funds for deposit, subject to the printed

rules and regulations, copies of which may be obtained at his office upon request. There is no charge for this service other than the exchange of out-of-town checks and drafts.

Personal checks will not be cashed by the University or credit allowed until the money has actually been received from the bank on which the check is drawn. New York drafts, money orders, and travellers' checks may be deposited for collection and withdrawals allowed when the cash is received. Students should provide themselves preferably with money orders, bank drafts on New York, or travellers' checks for the amount of their expenses, and are advised to open an account with the University on registration.

LIBRARY

The General Library of the University contains about 865,000 volumes, exclusive of unbound pamphlets and doctoral dissertations. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, the Bryson Library of Teachers College, and the libraries of the College of Physicians and Surgeons and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are three residence halls for men on South Field: Hartley and Livingston with 300 rooms each, and Fernald Hall with 282 rooms. Johnson Hall, on East Field (ready in September, 1924), for women students in the graduate and professional schools, Whittier, Bancroft and Seth Low Halls, maintained by Teachers College, and Brooks and John Jay Halls, maintained by Barnard College, are dormitories for women. The University Commons, in University Hall, provides board at reasonable rates.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Students Hall, of Barnard College, and the Thompson Memorial Building, of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the School of Medicine, the College of Pharmacy, the School of Dental and Oral Surgery, and the Summer Session.

MEDICAL SERVICE

The University Medical Officer, Dr. McCastline, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. Dr. McCastline, as University Physician, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Physician.

STUDENT ASSISTANCE

The University, through the Secretary of Appointments, endeavors to give to students who need it the opportunity to earn enough for partial support and to extend assistance in other ways. No prospective student, however, should come to Columbia expecting to depend entirely or even largely upon the assistance of the University, and every student should be prepared to meet at least the expenses of the first Session—approximately \$500.

BOOK STORE

The Columbia University Press Bookstore under direct University management, located in the building of the School of Journalism, with entrances at 2960 Broadway and from South Field, supplies students and officers with books and stationery at stated discounts from list prices. The Columbia Law Review also maintains a bookstore, for law books only, in Kent Hall.

SCHOOL OF DENTISTRY

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the school became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large and well-equipped buildings, at 302-306 East Thirty-fifth Street, and 309-315 East Thirty-fourth Street. These buildings are adjacent, connected by covered passageways, and are designed to meet the requirements of a modern dental school. They provide ample space and equipment for all students in Dentistry, the Advanced Courses in Dentistry, and the course (for women) in Oral Hygiene.

It is the purpose of the School of Dental and Oral Surgery to combine in the highest degree practicable a sound knowledge of the fundamentals of medicine with adequate training in the technical procedures of dental science and art. Two years of college work, including certain specified subjects, are required for admission and the course in dentistry covers four years.

On the completion of his second year the student who has had two years of collegiate training may be a candidate for the degree of Bachelor of Science in Dentistry; on completion of his fourth year, the degree of Doctor of Dental Surgery. Students who elect the combined courses (see p. 16) will receive the degree of Bachelor of Arts.

The students of the School enjoy all the privileges open to members of any other department of the University. They may live in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

Advanced courses in dentistry for practitioners are also conducted in the laboratories and infirmaries at 309-315 East Thirty-fourth Street. These courses cover the subjects of oral diagnosis including radiology, anesthesia, exodontia, plate prosthesis, dental ceramics, cast gold inlay, root canal technic, periodontia and removable bridgework, and are given under the educational control of the Administrative Board of the School of Dentistry. For full information address Advanced Courses in Dentistry, 309-315 East Thirty-fourth Street.

Courses in oral hygiene, offered by the University under the direction of the Administrative Board, are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. Full information may be obtained by addressing Professor Anna V. Hughes, at 309-315 East Thirty-fourth Street.

REQUIREMENTS FOR ADMISSION

Application. Students should apply in the spring, if possible, and may use Summer Session courses at Columbia University or elsewhere to make up deficiencies. All communications should be addressed to School of Dental and Oral Surgery, 302 East Thirty-fifth Street, New York City. All applications should be accompanied by the sum of twenty-five cents, to defray the cost of the dental student's certificate, as required by the laws of the state.

The requirements for admission to the School of Dentistry include the following subjects to be taken in college: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and one year of either French or German 1.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A 1-A 2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4* or *6-7*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Upon receiving 72 points in Columbia College, which is usually possible in two years, a student may take studies in the School of Dentistry provided he can satisfy the stated requirements for admission thereto and may receive the B.S. degree on the recommendation of that School upon the satisfactory completion of two years of professional study. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred. Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Combined Courses—Attention of students who propose to enter the School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may in his fourth year take studies in the School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

REGISTRATION

The academic year of 1924-1925 begins Wednesday, September 24, 1924, and continues until June 10, 1925. Candidates for the degree of D.D.S. will be ad-

mitted only at the beginning of the academic year in September. Students will be required to register personally in the office of the Director of the School, 302 East 35th Street, on a blank provided for the purpose.

SUMMARY OF FEES

The following fees are prescribed by statute:

A. University Fee:	
For all students for each Session or any part thereof	\$6
B. Tuition Fee:	
For all students per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed for a particular course	8
The prescribed courses in the School of Dentistry for the purpose of determining tuition fee shall be deemed to be twenty points in the Winter Session, and twenty points in the Spring Session, for each of the four years.	
C. Examination Fee:	
For any degree	20
For any certificate	10
D. Privileges:	
1. Late registration or application	6
2. Deficiency and special examinations	3
The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.	
E. Rebates:	
1. The University fee (A) and the Examination fee (C) are not subject to rebate.	
2. After the last day of the period provided for change of course, as announced in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a <i>pro rata</i> return of fees may be authorized by the Registrar.	

Deposits—A deposit of \$10.00 will be required in each year to cover material and breakage in the laboratories.

Lockers—Locker space will be assigned to students at a fee of \$1.00 for each academic year.

Fees for Repeated Courses—Students obliged to repeat the work of any year are required to pay a tuition fee of \$8.00 per point for each subject repeated.

EXAMINATIONS AND STANDING

Examinations are held at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See fall examination calendar.)

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

A student's performance in course is recorded according to the following grades: A, excellent; B, good; C, fair; F, failure. A, B, C are passing grades.

A student's advancement to the work of a succeeding year is dependent upon the satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the Director of the School.

CONDITIONS FOR ADVANCEMENT

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.
2. A student who fails in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.
3. A student who fails in two of his courses at the end of any academic year will be required to repeat all the courses of that year.
4. No student is allowed more than five years in which to complete the professional work for his degree.

REQUIREMENTS FOR ADMISSION TO ADVANCED STANDING

Admission to Advanced Standing—In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. Students seeking advanced standing will be rated in the class for which they have completed all the prerequisites.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have been begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address Mr. Avery W. Skinner, Director of Examinations and Inspections Division, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

DEPARTMENTAL STATEMENTS

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., in their first and second years, to candidates for the degree of A.B. in Columbia College, to candidates for the degree of A.M. or Ph.D., and to graduates in dentistry and medicine. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years.

The list of the required text-books and necessary individual equipment will be furnished at the time of registration, or earlier upon request. See list of books recommended on p. 24. Standard books for collateral reading may be obtained in the library.

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences, arranged with the object of correlating such new material with that of the standard text-books.

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

Anatomy

Anatomy 101—General histology and embryology. Lectures, conferences and laboratory work. 10 hours; Winter Session. First year. Professor SHARP and staff.

Anatomy 103-104—Anatomy of the extremities, preliminary visceral anatomy. Demonstrations, conferences, recitations and dissection. 8 hours, Winter and Spring Sessions. First year. Professors SHARP, GALLAUDET and staff.

Anatomy 105—Anatomy of the head, abdomen and thorax. Demonstrations, conferences, recitations and dissection. 8 hours; Winter Session. Second year. Professors SHARP, GALLAUDET and staff.

Bacteriology

Bacteriology 101—General bacteriology and immunology. Second year. 9 hours laboratory per week of Winter Session. Professor GAY and staff.

Bacteriology 105—The principles of epidemiology, infection, immunity, serum diagnosis and therapy. Lectures 3 hours for 15 weeks of Winter Session. Second year. 45 hours. Professor GAY and staff.

Biological Chemistry*(Nutrition)*

Biological chemistry 101-102—General physiological chemistry. Course that includes the elements of normal nutrition and dietetics. First year; 1 hour lecture, 1 hour recitation, and 6 hours laboratory per week each Session. Professors GIES and MILLER, Drs. GOODRIDGE, KAHN and KRASNOW, and Mr. KARSHAN and assistants.

Crown and Bridgework

Crown and bridgework 201-202—Third year; 2 hours lectures and recitations, 3 hours laboratory per week each Session. Professor LARGE and assistants.

Dental Histology and Embryology

Dental histology and embryology 101-102. Professor BODECKER and assistant. Second year. 1 hour lectures and recitations and 2 hours laboratory work per week Winter Session; 1 hour lectures and recitations and 2 hours laboratory work per week Spring Session.

Operative Dentistry

Operative dentistry 101-102—Dental anatomy. First year; 1 hour lecture, 3 hours laboratory per week each Session. Professor DIAMOND and assistants.

Operative dentistry 103-104—Second year; 2 hours lectures per week; 4½ hours laboratory and infirmary per week each Session. Professor CLONEY and assistants.

Operative dentistry 201-202—Third year; 1 hour lecture, 6 hours infirmary per week each Session. Professor CHASE, Jr., and assistants.

Operative dentistry 203-204—Fourth year; 2 hours lectures; 12 hours infirmary per week each Session. Professors GILLET, CHASE, Jr., and assistants.

Operative dentistry 205—History, ethics, economics, and management of dental practice. Fourth year; 10 hours lectures. Professor W. B. DUNNING.

Oral Surgery

Oral surgery 201-202—Third year; 2 hours lectures and recitations per week; each Session. Professors H. S. DUNNING, PARKER and BERGER and Dr. McCaffrey.

Oral surgery 203-204—Fourth year; 5 hours lectures and recitations and 2 hours clinic per week each Session. Professors H. S. DUNNING, BERGER, PARKER, Drs. STERN, McCaffrey and assistants.

Orthodontia

Orthodontia 201-202—Third year; 1 hour lecture, 2 hours laboratory per week each Session. Professor WAUGH, and Drs. ALLAN, BARBER and CONOVER.

Orthodontia 203-204—Fourth year; 2 hours infirmary per week each Session. Professor WAUGH and assistants.

Pathology

Pathology 202—General and special pathology, including experimental pathology. Third year. Professors JOBLING, PAPPENHEIMER and W. C. JOHNSON and assistants.

Pathology 203-204—Oral pathology. Fourth year; 2 hours lectures and recitations, 1 hour laboratory work per week each Session. Professor SCHROFF and assistants.

Pharmacology

Pharmacology 101—Pharmacology, pharmacy prescription writing and materia medica. Second year; 10 two-hour periods Winter Session. Professors LIEB and HYMAN, Drs. HIRSHFELD, LANDON and ZIEGLER.

Physical Diagnosis

Physical diagnosis 202—Fourth year; 6 hours, 10 weeks. 4 points Spring Session. Professor HERRICK and assistants.

Physiology

Physiology 101-102—Human physiology. Second year; 3 hours lectures, 3 hours demonstration and recitation and 3 hours laboratory per week each Session. Professors BURTON-OPITZ and F. M. JOHNSON and assistants.

Preventive Dentistry

Preventive dentistry 102—Oral hygiene. Second year; 1 hour lecture; 3 hours demonstration and practice per week Spring Session. Professor HUGHES and assistants.

Preventive dentistry 203-204—Oral prophylaxis. Third year; 3 hours demonstrations and practice per week Winter Session; 3 hours demonstrations and practice per week Spring Session. 2 points each Session. Professor HUGHES and assistants.

Prosthetic Dentistry

Prosthetic dentistry 101-102—Principles of prosthetic technic. First year; 1 hour lecture, 10½ hours laboratory per week each Session. Professor WILBOR and assistants.

Prosthetic dentistry 103-104—Dental metallurgy. First year; 1 hour lecture and recitation, 1 hour demonstration and practical laboratory work per week each Session. Mr. LINVILLE and assistants.

Prosthetic dentistry 105-106—Prosthetic technic. Second year; 1 hour lecture, 4 hours laboratory per week each Session. Professor WILBOR and assistants.

Prosthetic dentistry 201-202—Third year; 1½ hours lectures and recitations, 6 hours laboratory per week each Session. Professors DICKINSON, C. T. VAN WOERT and assistants.

Prosthetic dentistry 203-204—Fourth year; 1 hour lecture and recitation per week; 5½ hours laboratory each Session. Professor DICKINSON and assistants.

Radiology

Radiology 201-202—Third year; 1 hour lecture and laboratory per week. Professors F. T. VAN WOERT and EDWIN J. NESTLER.

REFERENCE BOOKS

- ANATOMY.** Cunningham; Piersol, *Human Anatomy*, Volumes 1 and 2, seventh edition; Black, *Dental Anatomy*.
- BACTERIOLOGY.** Hiss and Zinsser, *Text-book of Bacteriology*; Park and Williams, *Pathogenic Microorganisms*, 7th edition; Zinsser, *Infection and Resistance*, 3rd edition.
- HISTOLOGY AND EMBRYOLOGY.** Noyes, *Dental Histology; Histology and Histopathology of the Teeth*; Bailey, *Text-book of Histology*, 6th edition; Bailey and Miller, *Text-book of Embryology*, 4th edition.
- HISTORY AND ETHICS.** J. W. Taylor, *History of Dentistry*, Lee and Febiger, 1922; Edmund Noyes, *Ethics and Jurisprudence for Dentists*, 2nd edition, 1923.
- HYGIENE AND PREVENTIVE DENTISTRY.** Stillman and McCall, *Clinical Periodontia*; Fones, *Mouth Hygiene*, 2nd edition; Hiss and Zinsser, *Infection and Resistance*, last edition.
- OPERATIVE DENTISTRY.** G. V. Black, *Operative Dentistry*, 3rd edition; M. L. Ward, *American Text-book of Operative Dentistry*, 5th edition; C. N. Johnson, *Text-book of Operative Dentistry*, 5th edition.
- ORAL SURGERY.** Berger; Brophy, *Oral Surgery*; Blair, *Mouth and Jaw*; G. V. I. Brown, *Surgery of Oral Diseases*; Scodder, *Tumors of the Jaw*; Geo. B. Winter, *Exodontia*; Fisher and Reithmuller, *Dental Anesthesia*; Smith, *Block Anesthesia*; Thoma, *Oral Anesthesia*; Paluel J. Flagg, *The Art of Anesthesia*.
- PATHOLOGY.** Endlemand and Wagner, *General and Dental Pathology*, Maccallum, *Text-book of Pathology*; Black, *Special Dental Pathology*; Wells, *Chemical Pathology*.
- PHARMACOLOGY.** *The Laboratory Guide.* Any one of the following text-books: Buckley, *Modern Dental Materia Medica, Pharmacology and Therapeutics*; Prinz, *Dental Materia Medica and Pharmacology*; Bastedo, *Materia Medica, Pharmacology and Therapeutics*; Cushny, *Pharmacology and Therapeutics*; Dixon, *Manual of Pharmacology*; Sollman, *Manual of Pharmacology*.
- PHYSIOLOGY.** Burton-Opitz, *Text-book of Physiology*; Burton-Opitz, *Advanced Lessons in Practical Physiology*, 1921; Starling, *Human Physiology*, last edition; Baylis, *Principles of General Physiology*, last edition.
- PROSTHETIC DENTISTRY.** Prothero, *Prosthetic Dentistry*; Turner, *American Text-book of Prosthetic Dentistry*; Wilson, *Dental Prosthetics*; Evans, *Crown, Bridge and Porcelain Work*, 9th edition; Peeso, *Crown and Bridge Work*.
- RADIOLOGY.** Seth I. Hirsch, *Principles and Practice of Roentgenological Technique*.

ACADEMIC CALENDAR

1924-1925

1924

July 7, Monday. Twenty-fifth **Summer Session begins.**

(Registration in Summer Session begins Wednesday, July 2.)

Aug. 1, Friday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.

Aug. 15, Friday. Twenty-fifth **Summer Session ends.**

Sept. 8, Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.

Sept. 15, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

Sept. 17, Wednesday. **Registration** (including the payment of fees) **begins.**

Registration in University Extension (including the payment of fees) begins.

Sept. 19, Friday. Registration in Barnard College (including the payment of fees) begins.

Sept. 23, Tuesday. Registration ceases

1924

for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, Practical Arts, and University Extension. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 24, Wednesday. **Winter Session, 171st year, begins.**

Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, Practical Arts, and University Extension. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 25, Thursday. Classes begin.

Sept. 27, Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts. The privilege of later registration may be granted up to October 18 on payment of a fee of \$6.

Oct. 1, Wednesday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science,

1924

- Master of Laws, and Doctor of Philosophy. The privilege of later registration may be granted on payment of a fee of \$6.
- Oct. 4, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
Last day for registration in University Extension for students desiring credit.
- Oct. 7, Tuesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
- Oct. 18, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
- Oct. 21, Tuesday. Stated meeting of University Council.
- Nov. 4, Tuesday. Election Day, holiday.
- Nov. 23, Tuesday. **Annual Thanksgiving Service** in St. Paul's Chapel.
- Nov. 27, Thursday, to November 29, Saturday, inclusive. **Thanksgiving holidays.**
- Dec. 1, Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- Dec. 16, Tuesday. Stated meeting of University Council.

1924

Dec. 22, Monday, to

1925

- Jan. 4, Sunday, inclusive. **Christmas holidays.**
- Jan. 11, Sunday. **Annual Commemoration Service** in St. Paul's Chapel.
- Jan. 21, Wednesday. Mid-year examinations begin.
- Jan. 26, Monday. Mid-year examinations in University Extension begin.
- Jan. 29, Thursday. Registration in University Extension (including the payment of fees) begins.
- Jan. 31, Saturday. **Registration** (including the payment of fees) **begins.**
- Feb. 2, Monday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.
- Feb. 3, Tuesday. **Winter Session ends.** Registration ceases for all students entering Spring Session, except in University Extension. The privilege of later registration may be granted up to February 28 for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts on payment of a fee of \$6. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.

1925

Feb. 4, Wednesday. **Spring Session begins.**

Classes begin.

Feb. 12, Thursday. Alumni Day.

Feb. 14, Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Journalism, Business, Education, and Practical Arts.

Last day for registration in University Extension for students desiring credit.

Feb. 17, Tuesday. Stated meeting of University Council.

Feb. 23, Monday. Washington's Birthday, holiday.

Feb. 28, Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.

Mar. 2, Monday. Last day for filing applications for University Fellowships and Scholarships. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.

Mar. 10, Tuesday. Last day for filing applications for deficiency and special examinations, except in the School of Law. The privilege of later application may be granted on payment of a fee of \$6.

Apr. 1, Wednesday. Last day for filing applications for examination for the degree of Doctor of Philosophy to be conferred in June.

1925

Apr. 9, Thursday, to April 13, Monday, inclusive. Easter holidays.

Apr. 15, Wednesday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, and Doctor of Philosophy. The privilege of later application may be granted on payment of a fee of \$6.

Apr. 21, Tuesday. Stated meeting of University Council.

May 1, Friday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.

Last day for filing applications for scholarships in the Schools of Law, Applied Science, and Architecture.

May 18, Monday. Final examinations for all courses begin.

May 20, Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.

May 30, Saturday. Memorial Day, holiday.

May 31, Sunday. **Baccalaureate Service.**

June 1, Monday. Class Day.

June 3, Wednesday. **Commencement Day.**

June 10, Wednesday. **Spring Session ends.**

June 15, Monday. Entrance examinations begin.

July 6, Monday. Twenty-sixth **Summer Session begins.** (Registration in Summer Session

1925

begins Wednesday, July 1.)

Aug. 1, Saturday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.

Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.

Aug. 14, Friday. Twenty-sixth **Summer Session ends.**

Sept. 7, Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.

Sept. 14, Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

Sept. 16, Wednesday. **Registration** (including the payment of fees) **begins.**

Registration in University

1925

Extension (including the payment of fees) begins.

Sept. 18, Friday. Registration in Barnard College (including the payment of fees) begins.

Sept. 22, Tuesday. Registration ceases for students previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, Practical Arts, and University Extension. The privilege of later registration may be granted on payment of a fee of \$6.

Sept. 23, Wednesday. **Winter Session, 172d year, begins.** Registration ceases for students not previously matriculated, except graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, Practical Arts, and University Extension. The privilege of later registration may be granted on payment of a fee of \$6.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1925-1926

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY

Serial
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1927/26

Columbia University Bulletin of Information

Twenty-fifth Series, No. 39

June 27, 1925

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, New York, under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the Annual Directory of Officers and Students, the University Bibliography and the list of Essays for the Master's Degree, are issued as Bulletins.

C.P.—5,000—1925.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 302 East 35th Street; telephone Caledonia 1763.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1925-1926

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY



OFFICERS OF THE SCHOOL OF DENTISTRY

1925-1926

NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.), Hon.D. (Paris)
President of the University

ADMINISTRATIVE BOARD

FRANK T. VAN WOERT, M.D.S. . . . *Director and Professor of Clinical Dentistry*
LEUMAN M. WAUGH, D.D.S. *Secretary and Professor of Orthodontia*
WILLIAM DARRACH, M.D. *Dean of the School of Medicine*
JOHN W. DICKINSON, D.M.D. *Professor of Prosthetic Dentistry*
HENRY S. DUNNING, B.S., M.D., D.D.S. *Professor of Oral Surgery*
JAMES CHIDESTER EGBERT, Ph.D. *Director of University Extension*
HENRY W. GILLETT, D.M.D. *Professor of Operative Dentistry*

HONORARY DIRECTOR

WILLIAM CARR, A.M., M.D., D.D.S.

OFFICERS OF INSTRUCTION

ADOLPH BERGER *Assistant Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Associate Oral Surgeon to Vanderbilt Clinic.

CHARLES F. BODECKER *Associate Professor of Dental Histology
and Embryology*
D.D.S., University of Buffalo, 1900.

RUSSELL BURTON-OPITZ *Lecturer in Physiology*
M.D., Chicago, 1895; B.S., 1898; M.S., 1902; Ph.D., 1905.

OSCAR J. CHASE, JR. *Associate Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1905.

MATHER CLEVELAND *Associate in Anatomy*
A.B., Yale, 1911; A.M., 1914; M.D., Columbia, 1915.

THOMAS F. CLONEY *Assistant Professor of Operative Dentistry*
D.M.D., Harvard, 1912.

MOSES DIAMOND *Assistant Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1914.

JOHN W. DICKINSON *Professor of Prosthetic Dentistry*
D.M.D., Harvard, 1901.

- HENRY S. DUNNING *Professor of Oral Surgery*
 D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York University, 1915.
 Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; New York Hospital; Reconstruction Hospital; Visiting Oral Surgeon, Presbyterian Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear and Throat Hospital; St. Luke's Hospital; Roosevelt Hospital and St. Vincent's Hospital.
- WILLIAM B. DUNNING *Professor of Theory and Practice of Dentistry*
 D.D.S., New York College of Dentistry, 1895.
 Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital Psychiatric Institute, Ward's Island.
- ROWLAND G. FREEMAN, JR. *Assistant in Biological Chemistry*
 Ph.B., Yale, 1916; M.D., Columbia, 1921.
- BERN B. GALLAUDET *Assistant Professor of Anatomy*
 A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
 Consulting Surgeon, Bellevue Hospital.
- FREDERICK PARKER GAY *Professor of Bacteriology*
 A.B., Harvard, 1897; M.D., Johns Hopkins, 1901.
- WILLIAM J. GIES *Professor of Biological Chemistry*
 B.S., Pennsylvania College, 1893; M.S., 1896; Sc.D., 1914; Ph.B., Yale, 1894; Ph.D., 1897.
 Consulting Chemist, New York Botanical Garden; Member of the Faculties of the New York College of Pharmacy and the New York Teachers College; Pathological Chemist, First Division Bellevue Hospital; Director of Biochemical Research under the auspices of the National, New York State and New York City Dental Societies.
- HENRY W. GILLET *Professor of Operative Dentistry*
 D.M.D., Harvard, 1885.
- FREDERICK G. GOODRIDGE *Associate in Biological Chemistry*
 A.B., Harvard, 1897; M.D., Columbia, 1901; Ph.D., 1914.
- DAVID M. GRAYZEL *Assistant in Biological Chemistry*
 A.B., Columbia, 1918; Ch.E., 1921.
- LEROY L. HARTMAN *Professor of Operative Dentistry and Superintendent of Clinics*
 D.D.S., Northwestern University, 1913.
- WHITTON R. HATFIELD *Assistant Professor of Prosthetic Dentistry*
 D. D. S., Pennsylvania, 1918.
- EARL B. HOYT *Assistant Professor of Prosthetic Dentistry*
 D.D.S., University of Pennsylvania, 1918.
- ANNA V. HUGHES *Professor of Preventive Dentistry*
 D.M.D., Tufts, 1909.
- HAROLD THOMAS HYMAN *Assistant Professor of Pharmacology*
 A.B., Columbia, 1915; M.D., 1917.

- JAMES W. JOBLING *Professor of Pathology*
M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical College, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- WILLIAM C. JOHNSON *Associate Professor of Pathology*
A.B., Williams, 1905; M.D., Columbia, 1909.
Assistant Visiting Pathologist, Presbyterian Hospital; Attending Pathologist, Sloane Hospital.
- CHARLES H. LARGE *Associate Professor of Prosthetic Dentistry*
D.D.S., Pennsylvania, 1921.
- LOUISE D. LARIMORE *Associate in Pathology*
A.B., Wellesley, 1910; M.D., Woman's Medical College of Pennsylvania, 1915; A.M., Columbia, 1911.
- ¹CHARLES C. LIEB *Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
- EARL B. MCKINLEY, *Assistant Professor of Bacteriology*
A.B., Michigan, 1920; M.D., 1922.
- EDGAR GRIM MILLER, JR. *Associate Professor of Biological Chemistry*
B.S., Gettysburg, 1911; Ph.D., Columbia, 1913.
- EDWIN J. NESTLER *Assistant Professor of Radiology*
D.D.S., Pennsylvania, 1911.
- DOUGLAS B. PARKER *Assistant Professor of Oral Surgery*
M.D., Long Island College Hospital Medical School, 1912; D.D.S., Pennsylvania, 1914.
Associate Surgeon, Long Island College Hospital; Instructor, Surgical Medical School, Long Island College Hospital.
- HANNAH PIERSON *Instructor in Pathology*
M.D., Koenigsberg, 1919.
- EUGEN P. POLUSHKIN *Lecturer in Metallurgy*
Met.E., Mining Institution, Petrograd, 1915.
- PASTOR SAPINOSO *Instructor in Pathology*
B.S., Oklahoma, 1920; M.D., 1922; M.B., Chicago, 1920.
- JOSEPH SCHROFF *Associate Professor of Oral Pathology*
B.S.; College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
- J. CLAYTON SHARP *Associate Professor of Anatomy and Histology*
M.D., Columbia, 1901.
- MARTIN C. TRACY *Assistant Professor of Operative Dentistry*
D.M.D., Tufts, 1906.
Visiting Dental Surgeon, Presbyterian Hospital.
- WILLIAM D. TRACY *Assistant Professor of Operative Dentistry*
D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- CLARENCE T. VAN WOERT *Assistant Professor of Prosthetic Dentistry*
D.D.S., Buffalo, 1905.

¹ Absent on leave, 1925-1926.

- FRANK T. VAN WOERT *Director and Professor of Clinical Dentistry*
M.D.S., New York State University, 1890.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital;
Psychiatric Institute, Ward's Island. Consulting Dental Surgeon, Brooklyn Hospital.
- LEUMAN M. WAUGH *Professor of Orthodontia*
D.D.S., Buffalo, 1900.
- HORATIO B. WILLIAMS *Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905.
Special Consultant, Physiology, Presbyterian Hospital.

INFIRMARY AND LABORATORY ASSISTANTS

- | | |
|--|---------------------------------------|
| <i>Superintendent Crown and Bridgework</i> | <i>Histology</i> |
| <i>Infirmary</i> | THOMAS J. KIRWIN, B.S., M.D.,
A.M. |
| EARL B. HOYT, D.D.S. | SHAILER UPTON LAWTON, M.D. |
| <i>Crown and Bridge Technician</i> | <i>Operative Dentistry</i> |
| ARTHUR N. CROSS. | AMERICUS W. ANNUCCI, D.D.S. |
| <i>Superintendent Prosthetic Infirmary</i> | THOMAS J. CONTE, D.D.S. |
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| <i>Bacteriology</i> | SAMUEL BIRENBACH, D.D.S. |
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A.M. | HAROLD FISCHER, D.D.S. |
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| | ALLAN K. YOST, D.D.S. |
| | <i>Orthodontia</i> |
| | JAMES C. ALLAN, D.D.S. |
| | HENRY U. BARBER, JR., D.D.S. |
| | C. STERLING CONOVER, D.D.S. |

Pathology

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SAMUEL MONASH, B.S., D.D.S.

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THOMAS F. HANLON, M.D.
ERIC MATSNER, B.S., M.S., M.D.

Pharmacology

SAMUEL HIRSCHFELD, M.D.
JOHN F. LANDON, A.B., M.D.
JEROME M. ZIEGLER, A.B., M.D.

Prosthetic Dentistry

ARTHUR F. COWLEY, D.D.S.
CLINTON R. HASKELL, D.D.S.
JOHN P. O'FLAHERTY, D.D.S.
WALTER W. PADWE, D.D.S.
ELIAS REINER, D.D.S.
BERNARD RIESENBERG, D.D.S.
SELMAR W. SAXON, D.D.S.
ROBERT F. SHELDON, D.M.D.

Physiology

BARNET BINKOWITZ, A.B., M.D.
ROBERT N. DINEGAR, M.D.

CLINICAL STAFF, PRESBYTERIAN HOSPITAL

Director of the Dental Service

WILLIAM D. TRACY, D.D.S.

Assistant Visiting Oral Surgeon

THOMAS DALY, D.D.S.
CHARLES S. HATTAUER, D.D.S.
WILLIAM S. HOPKINS, D.D.S.
N. HENRY LARSON, D.D.S.
FRANCIS S. McCAFFREY, D.D.S.
FRANK F. MORRISON, D.D.S.
JOSEPH SCHROFF, M.D., D.D.S.
FRANK J. WYNN, D.D.S.

Visiting Dental Surgeon

WILLIAM B. DUNNING, D.D.S.
ANNA V. HUGHES, D.M.D.
MARTIN C. TRACY, D.M.D.
FRANK T. VAN WOERT

Assistant Visiting Dental Surgeon

HOWARD T. APPLGATE, D.D.S.
WILLIAM A. ARATA, D.D.S.
CHARLES W. HLAVAC, D.D.S.
DANIEL McMAHON, D.D.S.
ARTHUR S. MACMILLAN, D.D.S.
CHARLES C. MORRISON, D.D.S.
ROBERT H. SNEDAKER, D.D.S.
PAUL S. TARLER, D.D.S.

*Pyorrhea Clinic**Visiting Dental Surgeon*

FREDERICK S. MCKAY, D.D.S.

Assistant Visiting Dental Surgeon

MERVIN F. SANDMAN, D.D.S.
ALFRED B. STARK, D.D.S.

Dental Hygienist

ALTA LOUISE CLARK
JENNY GRAHAM
EDNA CARR HARRIMAN

Visiting Oral Surgeon

HENRY S. DUNNING, M.D., D.D.S.

Radiologist

HARRY MULHAUSE

COMMITTEES

Organization

Professors H. S. DUNNING (*Chairman*), GIES, DICKINSON and W. B. DUNNING

Instruction and Publication

Professors W. B. DUNNING (*Chairman*), WAUGH and DICKINSON

*Research*Professors GIES (*Chairman*), BODECKER and SCHROFF*Library and Museum*Professors GILLET (*Chairman*), CHASE and DIAMOND*Student Conference*Professors WAUGH (*Chairman*), H. S. DUNNING, DICKINSON and SHARP
and one student from each class.

UNIVERSITY OFFICERS OF ADMINISTRATION

WILLIAM H. CARPENTER, Ph.D.	<i>Provost of the University</i>
FRANK D. FACKENTHAL, A.B.	<i>Secretary of the University</i>
ADAM LEROY JONES, Ph.D.	<i>Director of University Admissions</i>
EDWARD J. GRANT, A.B.	<i>Registrar of the University</i>
CHARLES S. DANIELSON	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.	<i>Superintendent of Buildings and Grounds</i>
REV. RAYMOND C. KNOX, S.T.D.	<i>Chaplain of the University</i>
GEORGE L. MEYLAN, M.D.	<i>Medical Director of the Gymnasium</i>
WILLIAM H. McCASTLINE, M.D.	<i>University Medical Officer</i>
HERBERT B. HOWE, B.D., A.M.	<i>Director of Earl Hall</i>

GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering and Chemistry, with courses leading to the degree of Bachelor of Science, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church

for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the School of Dental and Oral Surgery, 302 East Thirty-fifth Street; the College of Physicians and Surgeons, 437 West Fifty-ninth Street; the College of Pharmacy, 113-119 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees to the Bursar. Students registering late are charged an additional fee and are held accountable for the absences thus incurred.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

GRADUATION

Diplomas are issued at Commencement and in February and October, or, in the case of the Ph.D. and J.D. degrees upon the completion of the requirements.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar.

The Dean or Director of the School or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

FEEES

Each student in the University will be called upon to pay three necessary fees. He will pay each year a University fee, a tuition fee, and, in the year of graduation, a graduation examination fee, payable upon application for the degree. The University and tuition fees are payable semi-annually in advance, and no reduction is made for late registration. Under the regulations, the privileges of the University are withheld from a student delinquent in the payment of fees. The fees to be paid by students are subject to change at any time at the discretion of the Trustees.

The term "point," upon which tuition fees are based, signifies work requiring attendance equivalent to one hour weekly on lectures or recitations, or a correspondingly longer period in laboratory, drafting room, or shop. The point value of each course is given in the *Announcements* of the several schools.

The University Fee and the Examination Fee are not subject to rebate. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar. When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

The Academic Calendar gives the ultimate dates for the completion of registration and for filing applications for admission, or deficiency or special examinations, or for a degree, without the payment of an additional fee. An examination to remove a deficiency in course or in entrance requirements, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like, is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals beyond this allowance; and service in washing apparatus, or work by a mechanic.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

DEPOSITORY FOR STUDENTS FUNDS

For the convenience and protection of students while in residence at the University, the Bursar is prepared to receive funds for deposit, subject to the printed

rules and regulations, copies of which may be obtained at his office upon request. There is no charge for this service other than the exchange of out-of-town checks and drafts.

Personal checks will not be cashed by the University or credit allowed until the money has actually been received from the bank on which the check is drawn. New York drafts, money orders, and travellers' checks may be deposited for collection and withdrawals allowed when the cash is received. Students should provide themselves preferably with money orders, bank drafts on New York, or travellers' checks for the amount of their expenses, and are advised to open an account with the University on registration.

LIBRARY

The General Library of the University contains about 895,000 volumes, exclusive of unbound pamphlets and doctoral dissertations. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, the Bryson Library of Teachers College, and the libraries of the College of Physicians and Surgeons and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are three residence halls for men on South Field: Hartley and Livingston with 300 rooms each, and Furnald Hall with 282 rooms. Johnson Hall, on East Field for women students in the graduate and professional schools, Whittier, Bancroft and Seth Low Halls, maintained by Teachers College, and Brooks, John Jay and New Residence Halls, maintained by Barnard College, are dormitories for women. The University Commons, in University Hall, provides board at reasonable rates.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Students Hall, of Barnard College, and the Thompson Memorial Building, of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the College of Pharmacy, the School of Dental and Oral Surgery, and the Summer Session.

MEDICAL SERVICE

The University Medical Officer, Dr. McCastline, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. Dr. McCastline, as University Physician, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Physician.

STUDENT ASSISTANCE

The University, through the Secretary of Appointments, endeavors to give to students who need it the opportunity to earn enough for partial support and to extend assistance in other ways. No prospective student, however, should come to Columbia expecting to depend entirely or even largely upon the assistance of the University, and every student should be prepared to meet at least the expenses of the first Session—approximately \$500.

BOOK STORE

The Columbia University Press Bookstore under direct University management, located in the building of the School of Journalism, with entrances at 2960 Broadway and from South Field, supplies students and officers with books and stationery at stated discounts from list prices.

SCHOOL OF DENTISTRY

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the school became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large and well-equipped buildings, at 302-306 East Thirty-fifth Street, and 309-315 East Thirty-fourth Street. These buildings are adjacent, connected by covered passageways, and are designed to meet the requirements of a modern dental school. They provide ample space and equipment for all students in Dentistry, and the course (for women) in Oral Hygiene.

It is the purpose of the School of Dental and Oral Surgery to combine in the highest degree practicable a sound knowledge of the fundamentals of medicine with adequate training in the technical procedures of dental science and art. Two years of college work, including certain specified subjects, are required for admission and the course in dentistry covers four years.

On the completion of his second year the student who has had two years of collegiate training may be a candidate for the degree of Bachelor of Science in Dentistry; on completion of his fourth year, the degree of Doctor of Dental Surgery. Students who elect the combined courses (see p. 15) will receive the degree of Bachelor of Arts.

The students of the School enjoy all the privileges open to members of any other department of the University. They may live in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

Courses in oral hygiene, offered by the University under the direction of the Administrative Board, are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. Full information may be obtained by addressing Professor Anna V. Hughes, at 309-315 East Thirty-fourth Street.

REQUIREMENTS FOR ADMISSION

Application. Students should apply in the spring, if possible, and may use Summer Session courses at Columbia University or elsewhere to make up deficiencies. Application blanks will be furnished by the Registrar's Office of the School of Dental and Oral Surgery.

A collegiate course of at least 72 points is the minimum requirement for admission. The courses taken at college must include the following: one year of

physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and one year of either French or German.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4* or *6-7*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

The following credentials must be submitted or mailed to the Registrar's Office, School of Dental and Oral Surgery:

1. Application for admission (blank furnished by the School on request). Transcript of courses taken or to be taken must be entered on this blank.
2. Official transcript of college record showing entrance credits, courses taken, and grades received.
3. A certificate of good health and physical qualification.
4. Three full face, unmounted photographs (size about 2 inches by 2 inches).

To meet the State requirements the following must be sent to the school in addition to the above:

1. An application for a qualifying certificate (blank furnished by this School on request).
2. Fee of one dollar (check or money order drawn to the order of the University of the State of New York) covering cost of issuance of the Dental Student Qualifying Certificate.

A student who has met the entrance requirements outlined above and who has thereafter completed satisfactorily two years of professional study in the School of Dentistry may, upon the recommendation of that School, receive the degree of B.S. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred. Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Combined Courses—Attention of students who propose to enter the School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may in his fourth year take studies in the School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

REGISTRATION

The academic year of 1925-1926 begins Wednesday, September 16, 1925, and continues until June 9, 1926. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September. Students will be required to register personally in the office of the Registrar of the School, 302 East 35th Street, on a blank provided for the purpose.

SUMMARY OF FEES

The following fees are prescribed by statute:

- A. *University Fee:*
For all students for each Session or any part thereof \$6
- B. *Tuition Fee:*
For all students per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed for a particular course 10
The prescribed courses in the School of Dentistry for the purpose of determining tuition fee shall be deemed to be sixteen points in the Winter Session, and sixteen points in the Spring Session, for each of the four years.
For Summer Session, infirmary and laboratory course 10
- C. *Examination Fee:*
For any degree 20
For any certificate 10
- D. *Privileges:*
1. Late registration or application 6
2. Deficiency and special examinations 3
The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.
- E. *Rebates:*
1. The University fee (A) and the Examination fee (C) are not subject to rebate.
2. After the last day of the period provided for change of course, as announced, in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a *pro rata* return of fees may be authorized by the Registrar.

Deposits—A deposit of \$10.00 will be required in each year to cover material and breakage in the laboratories; for each Summer Session, \$5.

Lockers. Each student on entering will be required to supply himself with two combination locks as prescribed by the School. Locks are one dollar each.

EXAMINATIONS AND STANDING

Examinations are held at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See academic calendar, p. 24.)

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

A student's performance in course is recorded according to the following grades: A, excellent; B, good; C, fair; F, failure. A, B, C are passing grades.

A student's advancement to the work of a succeeding year is dependent upon the satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the Director of the School.

CONDITIONS FOR ADVANCEMENT

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.

2. A student who fails in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.

3. A student who fails in two of his courses at the end of any academic year will be required to repeat all the courses of that year.

4. No student is allowed more than five years in which to complete the professional work for his degree.

REQUIREMENTS FOR ADMISSION TO ADVANCED STANDING

In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. Students seeking advanced standing will be rated in the class for which they have completed all the prerequisites.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have been begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address Mr. Avery W. Skinner, Director of Examinations and Inspections Division, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least one week before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

LIBRARY

A study and working library has been established which will be open for the convenience of students from 9 a. m. to 10 p. m. every day during the college course with the exceptions of Saturdays, Sundays and holidays. The Library will be open Saturday mornings from 9 a. m. to 12 m.

LOUNGE

A lounge and rest room has been provided in the 34th Street building which will be open at all times for the convenience of students.

LUNCH ROOM

A cafeteria lunch room has been established in the Thirty-fourth Street building which will be open from 11 a. m. to 4 p. m., Saturdays, Sundays and holidays excepted.

OUTLINE OF COURSES

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S. in their first and second years, to candidates for the degree of A.B. in Columbia College, and to candidates for the degree of A.M. or Ph.D. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years.

The list of the required text-books and necessary individual equipment will be furnished at the time of registration, or earlier upon request. See list of books recommended on p. 23. Standard books for collateral reading may be obtained in the library.

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences, arranged with the object of correlating such new material with that of the standard text-books.

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

ANATOMY

Anatomy 101—General histology and embryology. Lectures, conferences and laboratory work. 10 hours; Winter Session. First year. Professor SHARP and staff.

Anatomy 103-104—Anatomy of the extremities, preliminary visceral anatomy. Demonstrations, conferences, recitations and dissection. 8 hours, each Session. First year. Professors SHARP, GALLAUDET and staff.

Anatomy 105—Anatomy of the head, abdomen and thorax. Demonstrations, conferences, recitations and dissection. 8 hours; Winter Session. Second year. Professors SHARP, GALLAUDET and staff.

BACTERIOLOGY

Bacteriology 101—General bacteriology and immunology. Second year. 9 hours laboratory per week of Winter Session. Professor GAY and staff.

Bacteriology 105—The principles of epidemiology, infection, immunity, serum diagnosis and therapy. Lectures 3 hours for 15 weeks of Winter Session. Second year. 45 hours. Professor GAY and staff.

BIOLOGICAL CHEMISTRY

(Nutrition)

Biological chemistry 101-102—General physiological chemistry. Course that includes the elements of normal nutrition and dietetics. First year; 1 hour lecture, 1 hour recitation, and 6 hours laboratory per week each Session. Professors GIES and MILLER, Dr. GOODRIDGE, and assistants.

CROWN AND BRIDGEWORK

Crown and bridgework 201-202—Crown and bridgework. Third year; 2 hours lectures and recitations, 3 hours laboratory per week each Session. Professor LARGE and assistants.

DENTAL HISTOLOGY AND EMBRYOLOGY

Dental histology and embryology 101-102. Second year. 1 hour lectures and recitations and 2 hours laboratory work per week Winter Session; 1 hour lectures and recitations and 2 hours laboratory work per week Spring Session. Professor BODECKER and assistant.

DENTAL MATERIA MEDICA

Materia Medica 202—Materia Medica. Third year; 1 hour lecture, Spring Session. Professor SCHROFF.

Materia Medica 204—Materia Medica. Fourth year; 2 hours lectures, Spring Session. Professor SCHROFF.

OPERATIVE DENTISTRY

Operative dentistry 101-102—Dental anatomy. First year; 1 hour lecture, 3 hours laboratory per week each Session. Professors HARTMAN and DIAMOND and assistants.

Operative dentistry 103-104—Operative dentistry. Second year; 2 hours lectures per week; $4\frac{1}{2}$ hours laboratory and infirmary per week each Session. Professors HARTMAN and CLONEY and assistants.

Operative dentistry 201-202—Operative dentistry. Third year; 1 hour lecture, 6 hours infirmary per week each Session. Professors HARTMAN and CHASE, and assistants.

Operative dentistry 203-204—Operative dentistry. Fourth year; 2 hours lectures; 12 hours infirmary per week each Session. Professors HARTMAN and CHASE, and assistants.

Operative dentistry 205—History, ethics, economics, and management of dental practice. Fourth year; 12 hours lectures Winter Session. Professor GILLETT.

ORAL SURGERY

Oral surgery 201-202—Oral surgery. Third year; 2 hours lectures and recitations per week each Session. Professors H. S. DUNNING, PARKER and BERGER and Dr. McCaffrey.

Oral surgery 203-204—Oral surgery. Fourth year; 5 hours lectures and recitations and 2 hours clinic per week each Session. Professors H. S. DUNNING, BERGER, PARKER, Drs. STERN, McCaffrey, SCHWEITZER and assistants.

ORTHODONTIA

Orthodontia 201-202—Orthodontia. Third year; 1 hour lecture, 2 hours laboratory per week each Session. Professor WAUGH, and Drs. ALLAN, BARBER and CONOVER.

Orthodontia 203-204—Orthodontia. Fourth year; 2 hours infirmary per week each Session. Professor WAUGH and assistants.

PATHOLOGY

Pathology 202—General and special pathology, including experimental pathology. Third year; 6 hours laboratory per week Spring Session. Professors JOBLING and JOHNSON and assistants.

Pathology 203-204—Oral pathology. Fourth year; 2 hours lectures and recitations, 1 hour laboratory work per week each Session. Professor SCHROFF and assistants.

PHARMACOLOGY

Pharmacology 101—Pharmacology, pharmacy prescription writing and materia medica. Second year; 10 two-hour periods Winter Session. Professors LIEB and HYMAN, Drs. HIRSHFELD, LANDON and ZIEGLER.

PHYSIOLOGY

Physiology 101-102—Human physiology. Second year; 3 hours lectures, 3 hours demonstration and recitation and 3 hours laboratory per week each Session. Dr. BURTON-OPITZ and assistants.

PREVENTIVE DENTISTRY

Preventive dentistry 102—Oral hygiene. Second year; 1 hour lecture; 3 hours demonstration and practice per week Spring Session. Professor HUGHES and assistants.

Preventive dentistry 203-204—Oral prophylaxis. Third year; 3 hours demonstrations and practice per week Winter Session; 3 hours demonstrations and practice per week Spring Session. 2 points each Session. Professor HUGHES and assistants.

PROSTHETIC DENTISTRY

Prosthetic dentistry 101-102—Principles of prosthetic technic. First year; 1 hour lecture, 10½ hours laboratory per week each Session. Professor HATFIELD and assistants.

Prosthetic dentistry 103-104—Dental metallurgy. First year; 1 hour lecture and recitation, 1 hour demonstration and practical laboratory work per week each Session. Mr. POLUSHKIN and assistants.

Prosthetic dentistry 105-106—Prosthetic technic. Second year; 1 hour lecture, 4 hours laboratory per week each Session. Professor HATFIELD and assistants.

Prosthetic dentistry 201-202—Prosthetic dentistry. Third year; $1\frac{1}{2}$ hours lectures and recitations, 6 hours laboratory per week each Session. Professors DICKINSON, C. T. VAN WOERT and assistants.

Prosthetic dentistry 203-204—Prosthetic dentistry. Fourth year; 1 hour lecture and recitation per week; $5\frac{1}{2}$ hours laboratory each Session. Professor DICKINSON and assistants.

RADIOLOGY

Radiology 201-202—Radiology. Third year; 1 hour lecture and laboratory per week each Session. Professor NESTLER.

REFERENCE BOOKS¹

- ANATOMY.** Cunningham; Piersol, *Human Anatomy*, Volumes 1 and 2, seventh edition; Black, *Dental Anatomy*.
- BACTERIOLOGY.** Hiss and Zinsser, *Text-book of Bacteriology*; Park and Williams, *Pathogenic Microorganisms*, 7th edition; Zinsser, *Infection and Resistance*, 3rd edition.
- HISTOLOGY AND EMBRYOLOGY.** Noyes, *Dental Histology*; *Histology and Histopathology of the Teeth*; Bailey, *Text-book of Histology*, 6th edition; Bailey and Miller, *Text-book of Embryology*, 4th edition.
- HISTORY AND ETHICS.** J. W. Taylor, *History of Dentistry*, Lee and Febiger, 1922; Edmund Noyes, *Ethics and Jurisprudence for Dentists*, 2nd edition, 1923.
- HYGIENE AND PREVENTIVE DENTISTRY.** Stillman and McCall, *Clinical Periodontia*; Fones, *Mouth Hygiene*, 2nd edition; Hiss and Zinsser, *Infection and Resistance*, last edition.
- OPERATIVE DENTISTRY.** G. V. Black, *Operative Dentistry*, 3rd edition; M. L. Ward, *American Text-book of Operative Dentistry*, 5th edition; C. N. Johnson, *Text-book of Operative Dentistry*, 5th edition.
- ORAL SURGERY.** Berger: Brophy, *Oral Surgery*; Blair, *Mouth and Jaw*; G. V. I. Brown, *Surgery of Oral Diseases*; Scodder, *Tumors of the Jaw*; Geo. B. Winter, *Exodontia*; Fisher and Reithmuller, *Dental Anesthesia*; Smith, *Block Anesthesia*; Thoma, *Oral Anesthesia*; Paluel J. Flagg, *The Art of Anesthesia*.
- ORTHODONTIA.** Angle, *Treatment of Malocclusions of the Teeth*; 7th edition; Brady, *Chart of the Average Time of Development, Eruption and Absorption of the Teeth*.
- PATHOLOGY.** Endlemand and Wagner, *General and Dental Pathology*, Maccallum, *Text-book of Pathology*; Black, *Special Dental Pathology*; Wells, *Chemical Pathology*.
- PHARMACOLOGY.** *The Laboratory Guide*. Any one of the following text-books: Buckley, *Modern Dental Materia Medica, Pharmacology and Therapeutics*; Prinz, *Dental Materia Medica and Pharmacology*; Bastedo, *Materia Medica, Pharmacology and Therapeutics*; Cushny, *Pharmacology and Therapeutics*; Dixon, *Manual of Pharmacology*; Sollman, *Manual of Pharmacology*.
- PHYSIOLOGY.** Burton-Opitz, *Text-book of Physiology*; Burton-Opitz, *Advanced Lessons in Practical Physiology*, 1921; Starling, *Human Physiology*, last edition; Baylis, *Principles of General Physiology*, last edition.
- PROSTHETIC DENTISTRY.** Prothero, *Prosthetic Dentistry*; Turner, *American Text-Book of Prosthetic Dentistry*; Wilson, *Dental Prosthetics*; Evans, *Crown, Bridge and Porcelain Work* 9th edition; Peeso, *Crown and Bridge Work*.
- RADIOLOGY.** Seth I. Hirsch, *Principles and Practice of Roentgenological Technique*.

¹These books are obtainable in the Library of the Dental School between the hours of 10 a. m. and 10 p. m.

ACADEMIC CALENDAR

1925-1926

1925

- July 6 Monday. Twenty-sixth Summer Session begins. Registration in Summer Session begins Wednesday, July 1.
- August 1 Saturday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 14 Friday. Twenty-sixth Summer Session ends.
- September 8 Tuesday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 14 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- September 16 Wednesday. Registration in University Extension and Teachers College (including the payment of fees) begins.
- September 18 Friday. Registration in the School of Law, the School of Journalism, the School of Business, and Barnard College (including the payment of fees) begins.
- September 21 Monday. Registration in the Schools of Political Science, Philosophy and Pure Science, Columbia College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, and the School of Dentistry (including the payment of fees) begins.
- September 23 Wednesday. Winter Session, 172d year, begins. Registration ceases except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, Practical Arts, and University Extension. The privilege of later registration may be granted on payment of a fee of \$6.
- September 24 Thursday. Classes begin.
- September 26 Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts. The privilege of later application may be granted up to October 17 on payment of a fee of \$6.
- October 1 Thursday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- October 3 Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
Last day for registration in University Extension for students desiring credit.
- October 6 Tuesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
- October 17 Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education and Practical Arts.

1925

- October 20 Tuesday. Stated meeting of University Council.
 November 3 Tuesday. Election Day, holiday.
 November 24 Tuesday. Annual Thanksgiving Service in St. Paul's Chapel.
 November 26 Thursday, to November 28, Saturday, inclusive. Thanksgiving holidays.
 December 1 Tuesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
 December 15 Tuesday. Stated meeting of University Council.
 December 21 Monday, to

1926

1926

- January 3 Sunday, inclusive. Christmas holidays.
 January 10 Sunday. Annual Commemoration Service in St. Paul's Chapel.
 January 20 Wednesday. Mid-year examinations begin.
 January 28 Thursday. Registration in University Extension (including the payment of fees) begins.
 January 30 Saturday. Registration (including the payment of fees) begins.
 February 1 Monday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
 February 2 Tuesday. Winter Session ends. Registration ceases for all students entering Spring Session except in University Extension. The privilege of later registration may be granted up to February 27, for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts on payment of a fee of \$6. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
 February 3 Wednesday. Spring Session begins. Classes begin.
 February 12 Friday, Alumni Day.
 February 13 Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
 Last day for registration in University Extension for students desiring credit.
 February 16 Tuesday. Stated meeting of University Council.
 February 22 Monday. Washington's Birthday, holiday.
 February 27 Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
 March 1 Monday. Last day for filing applications for University Fellowships and Scholarships. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
 March 10 Wednesday. Last day for filing applications for deficiency and special examinations, except in the School of Law. The privilege of later application may be granted on payment of a fee of \$6.

1926

- March 31 Wednesday. Last day for filing applications for examination for the degree of Doctor of Philosophy to be conferred in June.
- April 1 Thursday, to April 5, Monday, inclusive. Easter holidays.
- April 15 Thursday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- April 20 Tuesday. Stated meeting of University Council.
- May 1 Saturday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
Last day for filing applications for scholarships in the Schools of Law, Applied Science, Architecture and Columbia College.
- May 17 Monday. Final examinations for all courses begin.
- May 19 Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- May 30 Sunday. Baccalaureate Service.
- May 31 Monday. Memorial Day, holiday. Class Day.
- June 2 Wednesday. Commencement Day.
- June 9 Wednesday. Spring Session ends.
- June 21 Monday. Entrance examinations begin.
- July 6 Tuesday. Twenty-seventh Summer Session begins. Registration in Summer Session begins Wednesday, June 30.
- August 2 Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 13 Friday. Twenty-seventh Summer Session ends.
- September 6 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 13 Monday. Examinations for entrance, advanced standing and for deficient and debarred students begin.
- September 15 Wednesday. Registration in University Extension and Teachers College (including the payment of fees) begins.
- September 17 Friday. Registration in the School of Law, the School of Journalism, the School of Business, and Barnard College (including the payment of fees) begins.
- September 20 Monday. Registration in the Schools of Political Science, Philosophy and Pure Science, Columbia College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, and the School of Dentistry (including the payment of fees) begins.
- September 22 Wednesday. Winter Session, 173d year, begins. Registration ceases except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, Practical Arts, and University Extension. The privilege of later registration may be granted on payment of a fee of \$6.

Registrations for Home Study Courses may be made at any time.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1926-1927

Series
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1926/27

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY

Columbia University Bulletin of Information

Twenty-sixth Series, No. 27

April 3, 1926

Issued weekly at Columbia University, Morningside Heights, New York, N.Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, New York, under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the Annual Directory of Officers and Students, are issued as Bulletins.

C.P.—5,000—1926.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 302 East 35th Street; telephone Caledonia 1763.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1926-1927

PUBLISHED BY
Columbia University
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MORNINGSIDE HEIGHTS
NEW YORK CITY

THE SCHOOL OF DENTISTRY

OFFICERS

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President of the University

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WILLIAM DARRACH, M.D. *Dean of the School of Medicine*
JOHN W. DICKINSON, D.M.D. *Professor of Prosthetic Dentistry*
HENRY S. DUNNING, B.S., M.D., D.D.S., F.A.C.S. . . . *Professor of Oral Surgery*
JAMES CHIDESTER EGBERT, Ph.D. *Director of University Extension*
HENRY W. GILLET, D.M.D. *Professor of Dentistry*

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ADOLPH BERGER *Assistant Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Associate Oral Surgeon to Vanderbilt Clinic.
CHARLES F. BODECKER *Professor of Dental Histology and Embryology*
D.D.S., Buffalo, 1900; F.A.C.D., 1925.
RUSSELL BURTON-OPITZ *Lecturer in Physiology*
M.D., Chicago, 1895; B.S., 1898; M.S., 1902; Ph.D., 1905.
OSCAR J. CHASE, JR. *Associate Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1905.
MATHER CLEVELAND *Associate in Anatomy*
A.B., Yale, 1911; A.M., 1914; M.D., Columbia, 1915.
THOMAS F. CLONEY *Assistant Professor of Operative Dentistry*
D.M.D., Harvard, 1912.
MOSES DIAMOND *Assistant Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1914.
JOHN W. DICKINSON *Professor of Prosthetic Dentistry*
D.M.D., Harvard, 1901.

¹Meets third Friday in October, January and April, 1 p. m.

- HENRY S. DUNNING *Professor of Oral Surgery*
 D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York University, 1915; F. A.C.S., 1924.
 Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; New York Hospital; Reconstruction Hospital; Visiting Oral Surgeon, Presbyterian Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear and Throat Hospital; St. Luke's Hospital; Roosevelt Hospital and St. Vincent's Hospital.
- WILLIAM B. DUNNING *Professor of Theory and Practice of Dentistry*
 D.D.S., New York College of Dentistry, 1895.
 Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital Psychiatric Institute, Ward's Island.
- BERN B. GALLAUDET *Assistant Professor of Anatomy*
 A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
 Consulting Surgeon, Bellevue Hospital.
- ¹FREDERICK PARKER GAY *Professor of Bacteriology*
 A.B., Harvard, 1897; M.D., Johns Hopkins, 1901. Commander of the Order of the Crown of Belgium.
- WILLIAM J. GIES *Professor of Biological Chemistry*
 B.S., Gettysburg, 1893; M.S., 1896; Sc.D., 1914; LL.D. 1924; Ph.B., Yale, 1894; Ph.D., 1897. LL.D., Baylor, 1924; Fellow, New York Academy of Sciences; Consulting Chemist, New York Botanical Garden; Member of the Faculties of the New York College of Pharmacy and the New York Teachers College; Pathological Chemist. First Division Bellevue Hospital; Director of Biochemical Research under the auspices of the National, New York State and New York City Dental Societies.
- HENRY W. GILLETT *Professor of Dentistry*
 D.M.D., Harvard, 1885.
- FREDERICK G. GOODRIDGE *Associate in Biological Chemistry*
 A.B., Harvard, 1897; M.D., Columbia, 1901; Ph.D., 1915.
- LEROY L. HARTMAN *Professor of Operative Dentistry*
 D.D.S., Northwestern, 1913. *and Superintendent of Clinics*
- WHITTON R. HATFIELD *Assistant Professor of Prosthetic Dentistry*
 D.D.S., Pennsylvania, 1918.
- EARLE B. HOYT *Assistant Professor of Prosthetic Dentistry*
 D.D.S., Pennsylvania, 1918.
- ANNA V. HUGHES *Professor of Preventive Dentistry*
 D.M.D., Tufts, 1909.
 Visiting Dental Surgeon, Presbyterian Hospital.
- HAROLD THOMAS HYMAN *Assistant Professor of Pharmacology*
 A.B., Columbia, 1915; M.D., 1917.
- JAMES W. JOBLING *Professor of Pathology*
 M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical College, 1897.
 Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- ¹Absent on leave, 1926-1927.

- WILLIAM C. JOHNSON *Associate Professor of Pathology*
A.B., Williams, 1905; M.D., Columbia, 1909.
Assistant Visiting Pathologist, Presbyterian Hospital; Attending Pathologist, Sloane Hospital.
- MAXWELL KARSHAN *Assistant Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; A.M., Columbia, 1920; Ph.D. 1925.
- CHARLES H. LARGE *Associate Professor of Prosthetic Dentistry*
D.D.S., Pennsylvania, 1921.
- LOUISE D. LARIMORE *Associate in Pathology*
A.B., Wellesley, 1910; A.M., Columbia, 1911; M.D., Woman's Medical College of Pennsylvania, 1915.
- CHARLES C. LIEB *Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
- GEORGE M. MACKEE *Associate Professor of Dermatology and Syphilology*
M.D., New York University and Bellevue Hospital Medical College, 1899.
- EARL B. MCKINLEY *Assistant Professor of Bacteriology*
A.B., Michigan, 1916; M.D., 1922.
- EDGAR GRIM MILLER, JR. *Associate Professor of Biological Chemistry*
B.S., Gettysburg, 1911; Ph.D., Columbia, 1913.
- EDWIN J. NESTLER *Assistant Professor of Radiology*
D.D.S., Pennsylvania, 1911.
- DOUGLAS B. PARKER *Assistant Professor of Oral Surgery*
M.D., Long Island College Hospital Medical School, 1912; D.D.S., Pennsylvania, 1914.
Associate Surgeon, Long Island College Hospital; Instructor, Surgical Medical School, Long Island College Hospital.
- HANNAH PIERSON *Instructor in Pathology*
A.B., Koenigsberg, 1918; M.D., 1919.
- EUGEN P. POLUSHKIN *Lecturer in Metallurgy*
Met.E., Mining Institute Petrograd, 1915.
- PASTOR SAPINOSO *Instructor in Pathology*
B.S., Oklahoma, 1920; M.D., 1922; M.B., Chicago, 1920.
- JOSEPH SCHROFF *Associate Professor of Oral Pathology*
B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
Assistant Attending Oral Surgeon, Presbyterian Hospital; Attending Oral Surgeon, Vanderbilt Clinic; Oral Surgeon, O.P.D., Mt. Sinai Hospital.
- J. CLAYTON SHARP *Associate Professor of Anatomy and Histology*
M.D., Columbia, 1901.
- MARTIN C. TRACY *Assistant Professor of Operative Dentistry*
D.M.D., Tufts, 1900.
Visiting Dental Surgeon, Presbyterian Hospital.

- WILLIAM D. TRACY *Assistant Professor of Operative Dentistry*
D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- CLARENCE T. VAN WOERT *Assistant Professor of Prosthetic Dentistry*
D.D.S., Buffalo, 1905.
- FRANK T. VAN WOERT *Director and Professor of Clinical Dentistry*
M.D.S., New York State University, 1890; F.A.C.D., 1923.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital;
Psychiatric Institute, Ward's Island. Consulting Dental Surgeon, Brooklyn Hospital.
- LEUMAN M. WAUGH *Professor of Orthodontia*
D.D.S., Buffalo, 1900; F.A.C.D., 1922.
- HORATIO B. WILLIAMS *Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905.
Special Consultant, Physiology, Presbyterian Hospital.

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Superintendent Assigning Room

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*Pyorrhea Clinic**Visiting Dental Surgeon*

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Assistant Visiting Dental Surgeons

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 ALFRED B. STARK, D.D.S.

Dental Hygienists

ALTA LOUISE CLARK
 JEANNE GRAHAM
 LOTTIE GRAHAM

Radiologist

HARRY MULHAUS

COMMITTEES

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Professors H. S. DUNNING (*Chairman*), GIES, DICKINSON and W. E. DUNNING

Instruction and Publication

Professors W. B. DUNNING (*Chairman*), WAUGH and DICKINSON

*Research*Professors GIES (*Chairman*), BODECKER and SCHROFF*Library and Museum*Professors GILLET (*Chairman*), CHASE and DIAMOND

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FRANK D. FACKENTHAL, A.B.	<i>Secretary of the University</i>
ADAM LEROY JONES, Ph.D.	<i>Director of University Admissions</i>
EDWARD J. GRANT, A.B.	<i>Registrar of the University</i>
CHARLES S. DANIELSON	<i>Bursar of the University</i>
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HERBERT B. HOWE, B.D., A.M.	<i>Director of Earl Hall</i>
NICHOLAS MCD. McKNIGHT, A.B.	<i>Secretary of Appointments</i>

SCHOOL OF DENTAL AND ORAL SURGERY OFFICERS OF ADMINISTRATION

FREDERICK MILLER, C.E.	<i>Assistant Superintendent of Buildings and Grounds</i>
CHARLES M. FORD, M.D.	<i>Assistant Registrar and Librarian</i>

GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering and Chemistry, with courses leading to the degree of Bachelor of Science, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church

for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the School of Dental and Oral Surgery, 302 East Thirty-fifth Street; the College of Physicians and Surgeons, 437 West Fifty-ninth Street; the College of Pharmacy, 113-119 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees to the Bursar. Students registering late are charged an additional fee and are held accountable for the absences thus incurred.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

GRADUATION

Diplomas are issued at Commencement and in February and October, or, in the case of the Ph.D. and J.D. degrees upon the completion of the requirements.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar.

The Dean or Director of the School or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

FEES

Each student in the University will be called upon to pay three necessary fees. He will pay each year a University fee, a tuition fee, and, in the year of graduation, a graduation examination fee, payable upon application for the degree. The University and tuition fees are payable semi-annually in advance, and no reduction is made for late registration. Under the regulations, the privileges of the University are withheld from a student delinquent in the payment of fees. The fees to be paid by students are subject to change at any time at the discretion of the Trustees.

The term "point," upon which tuition fees are based, signifies work requiring attendance equivalent to one hour weekly on lectures or recitations, or a correspondingly longer period in laboratory, drafting room, or shop. The point value of each course is given in the *Announcements* of the several schools.

The University Fee and the Examination Fee are not subject to rebate. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a pro rata return of fees may be authorized by the Registrar. When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

The Academic Calendar gives the ultimate dates for the completion of registration and for filing applications for admission, or deficiency or special examinations, or for a degree, without the payment of an additional fee. An examination to remove a deficiency in course or in entrance requirements, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like, is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals beyond this allowance; and service in washing apparatus, or work by a mechanic.

The *Announcement* of each school contains a schedule of fees and expenses for the courses in that school.

DEPOSITORY FOR STUDENTS FUNDS

For the convenience and protection of students while in residence at the University, the Bursar is prepared to receive funds for deposit, subject to the printed

rules and regulations, copies of which may be obtained at his office upon request. There is no charge for this service other than the exchange of out-of-town checks and drafts.

Personal checks will not be cashed by the University or credit allowed until the money has actually been received from the bank on which the check is drawn. New York drafts, money orders, and travellers' checks may be deposited for collection and withdrawals allowed when the cash is received. Students should provide themselves preferably with money orders, bank drafts on New York, or travellers' checks for the amount of their expenses, and are advised to open an account with the University on registration.

LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

RESIDENCE HALLS

There are four residence halls for men on South Field: Hartley and Livingston with 300 rooms each, Furnald Hall with 282 and John Jay with 476 rooms. Johnson Hall, on East Field for women students in the graduate and professional schools and Brooks, and Hewitt Halls, maintained by Barnard College, are dormitories for women. Whittier, Bancroft, Seth Low, Grant and Sarasota Halls are residence halls maintained by Teachers College for its students. The University Commons, in University Hall, provides board at reasonable rates.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the College of Pharmacy, the School of Dental and Oral Surgery, and the Summer Session.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical officer.

STUDENT ASSISTANCE

The University, through the Secretary of Appointments, endeavors to give to students who need it the opportunity to earn enough for partial support and to extend assistance in other ways. No prospective student, however, should come to Columbia expecting to depend entirely or even largely upon the assistance of the University, and every student should be prepared to meet at least the expenses of the first Session—approximately \$500.

BOOK STORE

The Columbia University Press Bookstore under direct University management, located in the building of the School of Journalism, with entrances at 2960 Broadway and from South Field, supplies students and officers with books and stationery at stated discounts from list prices.

SCHOOL OF DENTISTRY

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the school became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large and well-equipped buildings, at 302-306 East Thirty-fifth Street, and 309-315 East Thirty-fourth Street. These buildings are adjacent, connected by covered passageways, and are designed to meet the requirements of a modern dental school. They provide ample space and equipment for all students in Dentistry, and the course (for women) in Oral Hygiene.

It is the purpose of the School of Dental and Oral Surgery to combine in the highest degree practicable a sound knowledge of the fundamentals of medicine with adequate training in the technical procedures of dental science and art. Two years of college work, including certain specified subjects, are required for admission and the course in dentistry covers four years.

On the completion of his second year the student who has had two years of collegiate training may be a candidate for the degree of Bachelor of Science in Dentistry; on completion of his fourth year, the degree of Doctor of Dental Surgery. Students who elect the combined courses (see p. 15) will receive the degree of Bachelor of Arts.

The students of the School enjoy all the privileges open to members of any other department of the University. They may live in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

Courses in oral hygiene, offered by the School of Dental and Oral Surgery are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. For full information address Professor Anna V. Hughes, at 302-306 East Thirty-fifth Street.

Advanced courses in dentistry for practitioners will be conducted in the laboratories and infirmaries at 302-306 East Thirty-fifth Street. These courses will be divided into two groups—intensive and protracted—to meet the demands for advanced subjects. For full information address Advanced Courses, School of Dentistry, 302-306 East Thirty-fifth Street.

REQUIREMENTS FOR ADMISSION

Application. Students should apply in the spring, if possible, and may use Summer Session courses at Columbia University or elsewhere to make up defi-

ciencies. Application blanks will be furnished by the Registrar's Office of the School of Dental and Oral Surgery.

A collegiate course of at least 72 points is the minimum requirement for admission. The courses taken at college must include the following: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and one year of either French or German.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4* or *6-7*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

The following credentials must be submitted or mailed to the Registrar's Office, School of Dental and Oral Surgery:

1. Application for admission (blank furnished by the School on request). Transcript of courses taken or to be taken must be entered on this blank.

2. Official transcript of college record showing entrance credits, courses taken, and grades received.

3. A certificate of good health and physical qualification.

4. Three full face, unmounted photographs (size about 2 inches by 2 inches).

To meet the State requirements the following must be sent to the school in addition to the above:

1. An application for a qualifying certificate (blank furnished by this School on request).

2. Fee of one dollar (check or money order drawn to the order of the University of the State of New York) covering cost of issuance of the Dental Student Qualifying Certificate.

A student who has met the entrance requirements outlined above and who has thereafter completed satisfactorily two years of professional study in the School of Dentistry may, upon the recommendation of that School, receive the degree of B.S. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred. Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Combined Courses—Attention of students who propose to enter the School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may in his fourth year take studies in the School of Dentistry and

will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

REGISTRATION

The academic year of 1926-1927 begins Wednesday, September 22, 1926, and continues until June 1, 1927. Candidates for the degree of D.D.S. will be admitted only at the beginning of the academic year in September. Students will be required to register personally in the office of the Registrar of the School, 302 East 35th Street, on a blank provided for the purpose.

SUMMARY OF FEES

The following fees are prescribed by statute:

- A. University Fee:**
For all students for Winter, Spring or Summer Session, or any part thereof . . . \$6
- B. Tuition Fee:**
For all students per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed for a particular course 10
The prescribed courses in the School of Dentistry for the purpose of determining tuition fee shall be deemed to be twenty-two points in the Winter Session, and twenty-two points in the Spring Session, for each of the four years.
- C. Examination Fee:**
For any degree 20
For any certificate 10
- D. Privileges:**
1. Late registration or application 6
2. Deficiency and special examinations 3
The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.
- E. Rebates:**
1. The University fee (A) and the Examination fee (C) are not subject to rebate.
2. After the last day of the period provided for change of course, as announced, in the University Calendar, no tuition fees will be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a *pro rata* return of fees may be authorized by the Registrar.

Equipment. Upon registration Freshman and Junior students will be obliged to purchase from the University the required standard equipment which will be furnished at dealers' prices, less 5%. Additional requirements of equipment that is not necessarily of a specific manufacturer may be purchased from dealers but in all cases must be approved by heads of departments.

Supplies. All technique material and regular supplies *must* be purchased from the University upon an order from the instructor. The students will not be allowed to purchase more than is required to complete a case. The quantity and quality are selected with a view to the best possible results and conservation of the students' best interests.

Deposits—A deposit of \$10.00 will be required in each year to cover material and breakage in the laboratories; for each Summer Session, \$5.

Lockers. Each student on entering will be required to supply himself with two combination locks as prescribed by the School. Locks are one dollar each.

EXAMINATIONS AND STANDING

Examinations are held at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See *Academic Calendar*, p. 24.)

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

A student's performance in course is recorded according to the following grades: A, excellent; B, good; C, fair; F, failure. A, B, C are passing grades.

A student's advancement to the work of a succeeding year is dependent upon the satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the Director of the School.

CONDITIONS FOR ADVANCEMENT

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.

2. A student who fails in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.

3. A student who fails in two of his courses at the end of any academic year will be required to repeat all the courses of that year.

4. No student is allowed more than five years in which to complete the professional work for his degree.

REQUIREMENTS FOR ADMISSION TO ADVANCED STANDING

In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for

all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. Students seeking advanced standing will be rated in the class for which they have completed all the prerequisites.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have been begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address the Chief of Professional Examinations Bureau, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least ten days before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

STUDENT LOANS

Loan funds are also provided in limited amount for the assistance of students. Application is made on a blank which may be obtained from the office of the secretary of the University, or in the Appointments Office, East Hall.

LIBRARY

A library and study room located on the first floor of the Thirty-fifth Street building will be open for the convenience of students from 9 a. m. to 10 p. m. during the college term, except Saturday, Sunday and holidays. Saturday 9 a. m. to 12 m.

MUSEUM

The museum contains a very valuable collection of osteological specimens donated by the Odontological Society of New York, April, 1925. This is one of

the most valuable of its kind in this section of the country. It is housed in cases on either side of the library where it is available for study purposes during the active hours of the library.

LOUNGE

A lounge and rest room is located in the basement of the Thirty-fourth Street building and is open at all times for the convenience of students.

LUNCH ROOM

A cafeteria lunch service is available from 11 a. m. to 4 p. m. in the basement of the Thirty-fourth Street building, Saturdays, Sundays and holidays excepted.

OUTLINE OF COURSES

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S. in their first and second years, to candidates for the degree of A.B. in Columbia College, and to candidates for the degree of A.M. or Ph.D. Courses numbered from 201 upward are open to candidates for the degree of D.D.S., in their third and fourth years.

The list of the required text-books and necessary individual equipment will be furnished at the time of registration, or earlier upon request. See list of books recommended on p. 23. Standard books for collateral reading may be obtained in the library.

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences, arranged with the object of correlating such new material with that of the standard text-books.

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

ANATOMY

Anatomy 101—General histology and embryology. Lectures, conferences and laboratory work. 10 hours; Winter Session. First year. Professor SHARP and staff.

Anatomy 103-104—Anatomy of the extremities, preliminary visceral anatomy. Demonstrations, conferences, recitations and dissection. 8 hours, each Session. First year. Professors SHARP, GALLAUDET and staff.

Anatomy 105—Anatomy of the head, abdomen and thorax. Demonstrations, conferences, recitations and dissection. 8 hours; Winter Session. Second year. Professors SHARP, GALLAUDET and staff.

BACTERIOLOGY

Bacteriology 103—General bacteriology and immunology. Second year. 9 hours laboratory per week of Winter Session. Professor GAY and staff.

Bacteriology 105—The principles of epidemiology, infection, immunity, serum diagnosis and therapy. Lectures 3 hours for 15 weeks of Winter Session. Second year. 45 hours. Professor GAY and staff.

BIOLOGICAL CHEMISTRY

(Nutrition)

Biological chemistry 101-102—General physiological chemistry. Course that includes the elements of normal nutrition and dietetics. First year; 1 hour lecture, 1 hour recitation, and 6 hours laboratory per week each Session. Professors GIES and MILLER, KARSHAN, Dr. GOODRIDGE, and assistants.

CROWN AND BRIDGEWORK

Crown and bridgework 201-202—Crown and bridgework. Third year; 2 hours lectures and recitations, 3 hours laboratory per week each Session. Professor HOYT, and assistants.

DENTAL HISTOLOGY AND EMBRYOLOGY

Dental histology and embryology 101-102. Second year. 1 hour lectures and recitations and 2 hours laboratory work per week Winter Session; 1 hour lectures and recitations and 2 hours laboratory work per week Spring Session. Professor BODECKER and assistant.

DENTAL MATERIA MEDICA

Materia Medica 202—Materia Medica. Third year; 1 hour lecture, Spring Session. Professor SCHROFF.

Materia Medica 204—Materia Medica. Fourth year; 2 hours lectures, Spring Session. Professor SCHROFF.

OPERATIVE DENTISTRY

Operative dentistry 101-102—Dental anatomy. First year; 1 hour lecture, 5 hours laboratory per week each Session. Professors HARTMAN and DIAMOND and assistants.

Operative dentistry 103-104—Operative dentistry. Second year; 2 hours lectures per week; 6 hours laboratory and infirmary per week each Session. Professors HARTMAN and CLONEY and assistants.

Operative dentistry 201-202—Operative dentistry. Third year; 1 hour lecture, 8 hours infirmary per week each Session. Professors HARTMAN and CHASE, and assistants.

Operative dentistry 204—Office practice. Third year; 5 hours lectures Spring Session. Professor MARTIN TRACY.

Operative dentistry 205-206—Operative dentistry. Fourth year; 2 hours lectures; 10 hours infirmary per week each Session. Professors HARTMAN and CHASE, and assistants.

Operative dentistry 208—History, ethics, and economics. Fourth year; 12 hours lectures Spring Session. Professor GILLET.

ORAL SURGERY

Oral surgery 201-202—Oral surgery. Third year; 2 hours lectures and recitations and 2 hours clinic per week each Session. Professors H. S. DUNNING, PARKER and BERGER and Dr. McCAFFREY.

Oral surgery 203-204—Oral surgery. Fourth year; 4 hours lectures and recitations and 2 hours clinic per week each Session. Professors H. S. DUNNING, BERGER, PARKER, Dr. McCAFFREY, and assistants.

ORTHODONTIA

Orthodontia 201-202—Orthodontia. Third year; 1 hour lecture, 1 hour laboratory per week each Session. Professor WAUGH, and Drs. ALLAN, BARBER and CONOVER.

Orthodontia 203-204—Orthodontia. Fourth year; 1 hour lecture, 2 hours clinic per week each Session. Professor WAUGH and assistants.

PATHOLOGY

Pathology 202—General and special pathology, including experimental pathology. Third year; 6 hours laboratory per week Spring Session. Professors JOBLING and JOHNSON and assistants.

Pathology 203—Oral pathology. Fourth year; 2 hours lectures and recitations, 2 hours laboratory work per week Winter Session. Professor SCHROFF and assistants.

Pathology 206—Local and constitutional diseases of the oral mucosa. Fourth year. 6 hours lectures, Spring Session. Professor MACKEE.

PHARMACOLOGY

Pharmacology 101—Pharmacology, pharmacy prescription writing and materia medica. Second year; 15 two-hour periods Winter Session. Professors LIEB and HYMAN, Drs. HIRSHFELD, LANDON and ZIEGLER.

PHYSIOLOGY

Physiology 101-102—Human physiology. Second year; 3 hours lectures, 3 hours demonstration and recitation and 3 hours laboratory per week each Session. Dr. BURTON-OPITZ and assistants.

PREVENTIVE DENTISTRY

Preventive dentistry 102—Oral hygiene. Second year; 1 hour lecture; 3 hours demonstration and practice per week Spring Session. Professor HUGHES and assistants.

Preventive dentistry 203-204—Oral prophylaxis. Third year; 3 hours demonstrations and practice per week Winter Session; 3 hours demonstrations and practice per week Spring Session. Professor HUGHES and assistants.

PROSTHETIC DENTISTRY

Prosthetic dentistry 101-102—Principles of prosthetic technic. First year; 1 hour lecture, 9½ hours laboratory per week each Session. Professor HATFIELD and assistants.

Prosthetic dentistry 103-104—Dental metallurgy. First year; 1 hour lecture and recitation, 1 hour demonstration and practical laboratory work per week each Session. Mr. POLUSHKIN.

Prosthetic dentistry 105-106—Prosthetic technic. Second year; 1 hour lecture, 5 hours laboratory per week each Session. Professor HATFIELD and assistants.

Prosthetic dentistry 201-202—Prosthetic dentistry. Third year; 1 hour lecture and recitation, 10 hours laboratory and infirmary per week each Session. Professors DICKINSON, HOYT, C. T. VAN WOERT and assistants.

Prosthetic dentistry 203-204—Prosthetic dentistry. Fourth year; 1 hour lecture and recitation per week; 9½ hours infirmary each Session. Professor DICKINSON, HOYT and assistants.

RADIOLOGY

Radiology 201-202—Radiology. Third year; 1 hour lecture and laboratory per week each Session. Professor NESTLER.

SUMMER SESSION INFIRMARY AND LABORATORY COURSES

Clinic s1—Subscription Course; seven weeks beginning June 2, 1926. 2 points.

Deposit for breakage: \$5.

Clinic s2—Deficiency Course; ten weeks beginning June 2, 1926. 4 points.

Deposit for breakage: \$5.

REFERENCE BOOKS¹

- ANATOMY.** Cunningham; Piersol, *Human Anatomy*, Volumes 1 and 2, seventh edition; Black, *Dental Anatomy*.
- BACTERIOLOGY.** Hiss and Zinsser, *Text-book of Bacteriology*; Park and Williams, *Pathogenic Microorganisms*, 7th edition; Zinsser, *Infection and Resistance*, 3rd edition.
- HISTOLOGY AND EMBRYOLOGY.** Noyes, *Dental Histology*; *Histology and Histopathology of the Teeth*; Bailey, *Text-book of Histology*, 6th edition; Bailey and Miller, *Text-book of Embryology*, 4th edition.
- HISTORY AND ETHICS.** J. W. Taylor, *History of Dentistry*, Lee and Febiger, 1922; Edmund Noyes, *Ethics and Jurisprudence for Dentists*, 2nd edition, 1923.
- HYGIENE AND PREVENTIVE DENTISTRY.** Stillman and McCall, *Clinical Periodontia*; Fones, *Mouth Hygiene*, 2nd edition; Hiss and Zinsser, *Infection and Resistance*, last edition.
- OPERATIVE DENTISTRY.** G. V. Black, *Operative Dentistry*, 3rd edition; M. L. Ward, *American Text-book of Operative Dentistry*, 5th edition; C. N. Johnson, *Text-book of Operative Dentistry*, 5th edition.
- ORAL SURGERY.** Berger: Brophy, *Oral Surgery*; Blair, *Mouth and Jaw*; G. V. I. Brown, *Surgery of Oral Diseases*; Scodder, *Tumors of the Jaw*; Geo. B. Winter, *Exodontia*; Fisher and Reithmuller, *Dental Anesthesia*; Smith, *Block Anesthesia*; Thoma, *Oral Anesthesia*; Paluel J. Flag, *The Art of Anesthesia*.
- ORTHODONTIA.** Angle, *Treatment of Malocclusions of the Teeth*; 7th edition; Brady, *Chart of the Average Time of Development, Eruption and Absorption of the Teeth*.
- PATHOLOGY.** Endlemand and Wagner, *General and Dental Pathology*, Maccallum, *Text-book of Pathology*; Black, *Special Dental Pathology*; Wells, *Chemical Pathology*.
- PHARMACOLOGY.** *The Laboratory Guide.* Any one of the following text-books: Buckley, *Modern Dental Materia Medica, Pharmacology and Therapeutics*; Prinz, *Dental Materia Medica and Pharmacology*; Bastedo, *Materia Medica, Pharmacology and Therapeutics*; Cushny, *Pharmacology and Therapeutics*; Dixon, *Manual of Pharmacology*; Sollman, *Manual of Pharmacology*.
- PHYSIOLOGY.** Burton-Opitz, *Text-book of Physiology*; Burton-Opitz, *Advanced Lessons in Practical Physiology*, 1921; Starling, *Human Physiology*, last edition; Baylis, *Principles of General Physiology*, last edition.
- PROSTHETIC DENTISTRY.** Campbell, *Full Denture Prosthesis*; Le Gro, *Ceramics*; Prothero, *Prosthetic Dentistry*; Turner, *American Text-Book of Prosthetic Dentistry*; Wilson, *Dental Prosthetics*; Evans, *Crown, Bridge and Porcelain Work* 9th edition; Peeso, *Crown and Bridge Work*.
- RADIOLOGY.** Seth I. Hirsch, *Principles and Practice of Roentgenological Technique*.

¹These books are obtainable in the Library of the Dental School between the hours of 9 a. m. and 10 p. m.

ACADEMIC CALENDAR

1926-1927

1926

- February 3 Wednesday. Spring Session begins. Classes begin.
- February 12 Friday, Alumni Day.
- February 13 Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
Last day for registration in University Extension for students desiring credit.
- February 16 Tuesday. Stated meeting of University Council.
- February 22 Monday. Washington's Birthday, holiday.
- February 27 Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
- March 1 Monday. Last day for filing applications for University Fellowships and Scholarships. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- March 10 Wednesday. Last day for filing applications for deficiency and special examinations, except in the School of Law. The privilege of later application may be granted on payment of a fee of \$6.
- March 31 Wednesday. Last day for filing applications for examination for the degree of Doctor of Philosophy to be conferred in June.
- April 1 Thursday to April 5, Monday, inclusive. Easter holidays.
- April 15 Thursday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- April 20 Tuesday. Stated meeting of University Council.
- May 1 Saturday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
Last day for filing applications for scholarships in the Schools of Law, Applied Science, Architecture, and Columbia College.
- May 17 Monday. Final examinations for all courses begin.
- May 19 Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- May 30 Sunday. Baccalaureate Service.
- May 31 Monday. Memorial Day, holiday. Class Day.
- June 2 Wednesday. Commencement Day.
- June 9 Wednesday. Spring Session ends.
- June 21 Monday. Entrance examinations begin.
- July 6 Tuesday. Twenty-seventh Summer Session begins. Registration in Summer Session begins Wednesday, June 30.

1926

- August 2 Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 13 Friday. Twenty-seventh Summer Session ends.
- September 6 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 13 Monday. Examinations for entrance, advanced standing and for deficient and debarred students begin.
- September 15 Wednesday. Registration in University Extension and Teachers College (including the payment of fees) begins.
- September 17 Friday. Registration in the School of Law, the School of Journalism, the School of Business, and Barnard College (including the payment of fees) begins.
- September 20 Monday. Registration in the Schools of Political Science, Philosophy and Pure Science, Columbia College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, and the School of Dentistry (including the payment of fees) begins.
- September 22 Wednesday. Winter Session, 173d year, begins. Registration ceases except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, Practical Arts, and University Extension. The privilege of later registration may be granted on payment of a fee of \$6.
- September 23 Thursday. Classes begin.
- September 25 Saturday. Registration ceases for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts. The privilege of later application may be granted up to October 16 on payment of a fee of \$6.
- October 1 Friday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- October 2 Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
Last day for registration in University Extension for students desiring credit.
- October 5 Tuesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
- October 16 Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
- October 19 Tuesday. Stated meeting of University Council.
- November 2 Tuesday. Election Day, holiday.
- November 23 Tuesday. Annual Thanksgiving service in St. Paul's Chapel.

1926

- November 25 Thursday, to November 27, Saturday, inclusive. Thanksgiving holidays.
 December 1 Wednesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
 December 21 Tuesday. Stated meeting of University Council.
 December 22 Wednesday, to

1927

1927

- January 5 Wednesday, inclusive. Christmas holidays.
 January 9 Sunday. Annual Commemoration Service in St. Paul's Chapel.
 January 19 Wednesday. Mid-year examinations begin.
 January 27 Thursday. Registration in University Extension (including the payment of fees) begins.
 January 29 Saturday. Registration (including the payment of fees) begins.
 February 1 Tuesday. Winter Session ends. Registration ceases for all students for the Spring Session, except in University Extension. The privilege of later registration may be granted up to February 26 for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts, on payment of a fee of \$6.
 Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
 Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
 February 2 Wednesday. Spring Session begins. Classes begin.
 February 12 Saturday. Alumni Day.
 Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Journalism, Business, Education, and Practical Arts.
 Last day for registration in University Extension for students desiring credit.
 February 15 Tuesday. Stated meeting of University Council.
 February 22 Tuesday. Washington's Birthday, holiday.
 February 26 Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, and Practical Arts.
 March 1 Tuesday. Last day for filing applications for University Fellowships and Scholarships.
 Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
 March 10 Thursday. Last day for filing applications for deficiency and special examinations, except in the School of Law. The privilege of later application may be granted on payment of a fee of \$6.
 April 1 Friday. Last day for filing applications for examination for the degree of Doctor of Philosophy and of Doctor of Law to be conferred in June.
 April 14 Thursday, to April 18, Monday, inclusive. Easter holidays.

1927

- April 15 Friday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application will be granted on payment of a fee of \$6.
- April 19 Tuesday. Stated meeting of University Council.
- May 2 Monday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
- Last day for filing applications for Cutting Fellowships and for scholarships in the Schools of Law, Applied Science, Architecture and in Columbia College.
- May 16 Monday. Final examinations for all courses begin.
- May 18 Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- May 29 Sunday. Baccalaureate Service.
- May 30 Monday. Memorial Day, holiday. Class Day.
- June 1 Wednesday. Commencement Day.
- June 8 Wednesday. Spring Session ends.
- June 20 Monday. College entrance examinations begin.
- July 6 Wednesday. Registration in Summer Session begins.
- July 11 Monday. Twenty-eighth Summer Session begins. Registration ceases. The privilege of later registration may be granted on payment of a fee of \$6.
- August 1 Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 19 Friday. Twenty-eighth Summer Session ends.
- September 12 Monday. Last day for filing applications for college entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 19 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- September 21 Wednesday. Registration in University Extension and Teachers College (including the payment of fees) begins.
- September 23 Friday. Registration in the School of Law, the School of Journalism, the School of Business, and Barnard College (including the payment of fees) begins.
- September 26 Monday. Registration in the Faculties of Political Science, Philosophy and Pure Science, Columbia College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, and the School of Dentistry (including the payment of fees) begins.
- September 28 Wednesday. Winter Session, 174th year, begins. Registration ceases except for graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, Education, Practical Arts, and University Extension. The privilege of later registration may be granted on payment of a fee of \$6.
- September 29 Thursday. Classes begin.
- Registration for Home Study Courses may be made at any time.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT
1927-1928

Serial
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1927/28

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY

Columbia University Bulletin of Information

Twenty-seventh Series, No. 32

May 7, 1927

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1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the Annual Directory of Officers and Students, are issued as Bulletins.

C.P.—5,000—1927.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 302 East 35th Street; telephone Caledonia 1763.



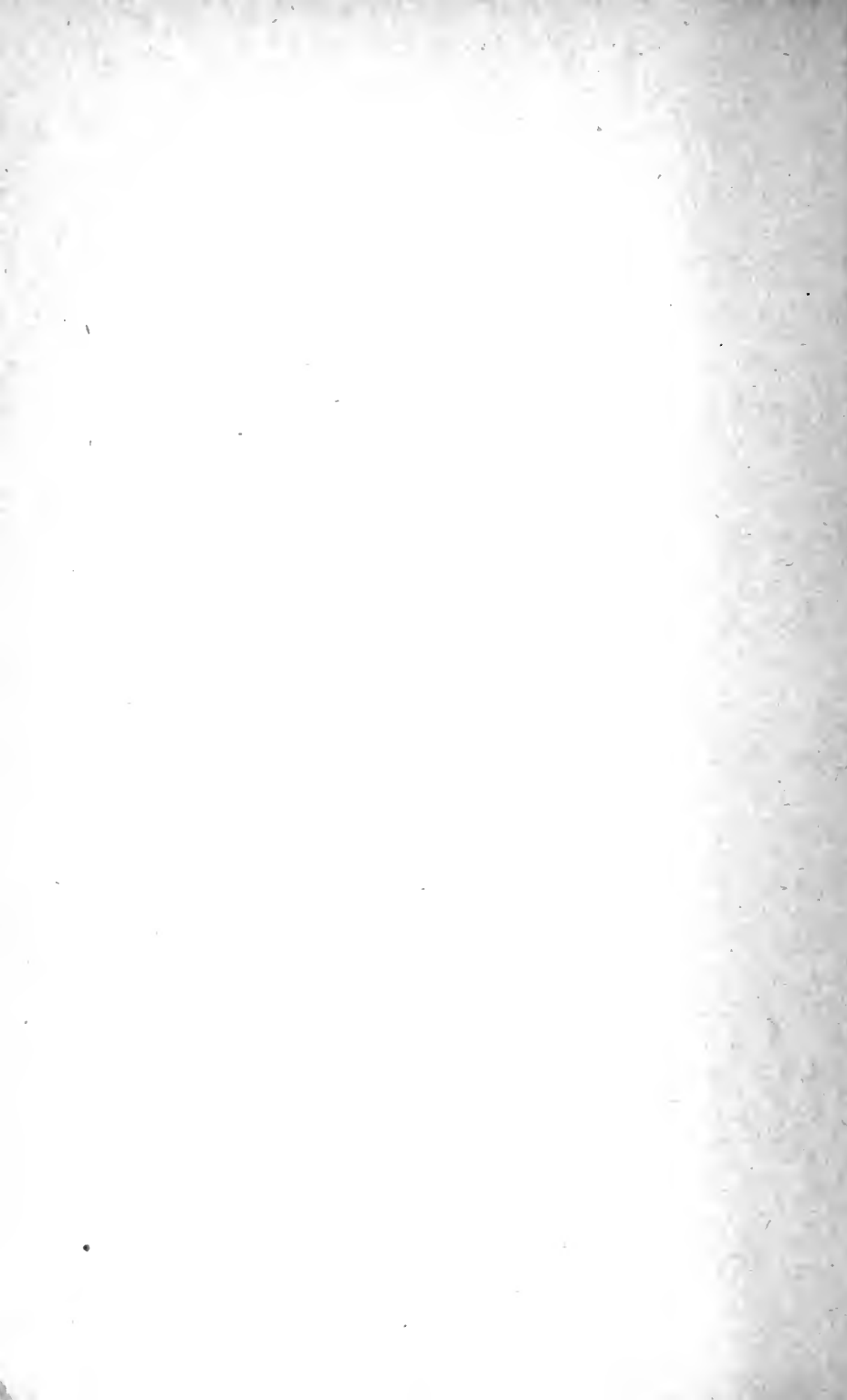
Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1927-1928

PUBLISHED BY
Columbia University
in the City of New York
MORNINGSIDE HEIGHTS
NEW YORK CITY



THE SCHOOL OF DENTISTRY

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NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.), Hon.D. (Paris)
President of the University

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JAMES CHIDESTER EGBERT, Ph.D. *Director of University Extension*
HENRY W. GILLET, D.M.D. *Professor of Dentistry*

OFFICERS OF INSTRUCTION

ADOLPH BERGER *Assistant Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Chief of Clinic, Oral Surgery Department, Vanderbilt Clinic.
Oral Surgeon to Hospital for Joint Diseases.
CHARLES F. BODECKER *Professor of Dental Histology and Embryology*
D.D.S., Buffalo, 1900; F. A.C.D., 1925.
RUSSELL BURTON-OPITZ *Lecturer in Physiology*
M.D., Chicago, 1895; B.S., 1898; M.S., 1902; Ph.D., 1905.
OSCAR J. CHASE, JR. *Associate Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1905.
THOMAS F. CLONEY *Assistant Professor of Operative Dentistry*
D.M.D., Harvard, 1912.
MOSES DIAMOND *Assistant Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1914.
HENRY S. DUNNING *Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York University, 1915; F. A.C.S., 1924.
Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; New York Hospital; Reconstruction Hospital; Visiting Oral Surgeon, Presbyterian Hospital; Fifth Avenue Hospital; Knickerbocker Hospital; Nassau Hospital; Broad Street Hospital, Vassar Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear and Throat Hospital; St. Luke's Hospital; Roosevelt Hospital and St. Vincent's Hospital.

¹Meets third Friday in October, January and April, 1 p. m.

- WILLIAM B. DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1895.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital;
Psychiatric Institute, Ward's Island. Director of the Department of Dentistry; New York
Orthopedic Dispensary and Hospital.
- BERN B. GALLAUDET *Assistant Professor of Anatomy*
A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
Consulting Surgeon, Bellevue Hospital.
- FREDERICK PARKER GAY *Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901. Commander of the Order of the Crown of
Belgium.
- WILLIAM J. GIES *Professor of Biological Chemistry*
B.S., Gettysburg, 1893; M.S., 1896; Sc.D., 1914; LL.D. 1924; Ph.B., Yale, 1894; Ph.D., 1897;
LL.D., Baylor, 1924; Fellow, New York Academy of Sciences; Consulting Chemist, New
York Botanical Garden; Member of the Faculties of the New York College of Pharmacy
and the New York Teachers College; Pathological Chemist. First Division Bellevue
Hospital; Director of Biochemical Research under the auspices of the National, New York
State and New York City Dental Societies. Chairman Dental Advisory Board, Department
of Health, New York City.
- HENRY W. GILLETT *Professor of Dentistry*
D.M.D., Harvard, 1885. Member Dental Advisory Board, Department of Health, New
York City.
- FREDERICK G. GOODRIDGE *Associate in Biological Chemistry*
A.B., Harvard, 1897; M.D., Columbia, 1901; Ph.D., 1915.
- LEROY L. HARTMAN *Professor of Operative Dentistry
and Superintendent of Clinics*
D.D.S., Northwestern, 1913.
- WHITTON R. HATFIELD *Assistant Professor of Prosthetic Dentistry*
D.D.S., Pennsylvania, 1918.
- I. HIRSCHFELD *Assistant Professor of Operative Dentistry*
D.D.S., New York College of Dentistry, 1902.
- EARLE B. HOYT *Assistant Professor of Prosthetic Dentistry*
D.D.S., Pennsylvania, 1918.
- ANNA V. HUGHES *Professor of Preventive Dentistry*
D.M.D., Tufts, 1909.
Visiting Dental Surgeon, Presbyterian Hospital; Member Dental Advisory Board, Depart-
ment of Health, New York City.
- HAROLD THOMAS HYMAN *Assistant Professor of Pharmacology*
A.B., Columbia, 1915; M.D., 1917.
- JAMES W. JOBLING *Professor of Pathology*
M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical College, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- MAXWELL KARSHAN *Assistant Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; A.M., Columbia, 1920; Ph.D. 1925.

- LOUISE D. LARIMORE *Associate in Pathology*
A.B., Wellesley, 1910; A.M., Columbia, 1911; M.D., Woman's Medical College of Pennsylvania, 1915.
- CHARLES C. LIEB *Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
- EDGAR GRIM MILLER, JR. *Associate Professor of Biological Chemistry*
B.S., Gettysburg, 1911; Ph.D., Columbia, 1913.
- EDWIN J. NESTLER *Assistant Professor of Radiology*
D.D.S., Pennsylvania, 1911.
- ALFRED OWRE *Dean and Professor of Theory and Practice of Dentistry*
D.M.D., Minnesota, 1894; M.D. and C.M., College of Physicians and Surgeons, Minneapolis, 1895; A.B., Minnesota, 1910; F.A.C.D., 1926.
- DOUGLAS B. PARKER *Assistant Professor of Oral Surgery*
M.D., Long Island College Hospital Medical School, 1912; D.D.S., Pennsylvania, 1914. Associate Surgeon, Long Island College Hospital; Instructor, Surgical Medical School, Long Island College Hospital.
- EUGEN P. POLUSHKIN *Lecturer in Metallurgy*
Met.E., Mining Institute Petrograd, 1915.
- ARTHUR T. ROWE *Professor of Prosthetic Dentistry*
D.D.S., Minnesota, 1906.
- PASTOR SAPINOSO *Instructor in Pathology*
B.S., Oklahoma, 1920; M.D., 1922; M.B., Chicago, 1920.
- JOSEPH SCHROFF *Associate Professor of Oral Pathology*
B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922. Assistant Attending Oral Surgeon, Presbyterian Hospital; Attending Oral Surgeon, Vanderbilt Clinic; Oral Surgeon, O.P.D., Mt. Sinai Hospital.
- J. CLAYTON SHARP *Associate Professor of Anatomy and Histology*
M.D., Columbia, 1901.
- WILLIAM A. SQUIRES *Assistant Professor of Prosthetic Dentistry*
D.D.S., Northwestern, 1907.
- MARTIN C. TRACY *Assistant Professor of Operative Dentistry*
D.M.D., Tufts, 1900.
Visiting Dental Surgeon, Presbyterian Hospital.
- WILLIAM D. TRACY *Assistant Professor of Operative Dentistry*
D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- FRANK T. VAN WOERT *Professor of Clinical Dentistry*
M.D.S., New York State University, 1890; F.A.C.D., 1923.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital; Psychiatric Institute, Ward's Island. Consulting Dental Surgeon, Brooklyn Hospital. Member Dental Advisory Board, Department of Health, New York City.

LEUMAN M. WAUGH *Professor of Orthodontia*
D.D.S., Buffalo, 1900; F.A.C.D., 1922. Consulting Orthodontist, New York Orthopedic Dispensary and Hospital; Member Dental Advisory Board, Department of Health, New York City.

HORATIO B. WILLIAMS *Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905.
Special Consultant, Physiology, Presbyterian Hospital.

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<i>Visiting Dental Surgeons</i>	<i>Visiting Oral Surgeon</i>
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FREDERICK S. MCKAY	<i>Assistant Visiting Oral Surgeon</i>
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FRANK T. VAN WOERT, M.D.S., F.A.C.D.	<i>Pyorrhea Clinic</i>
	FREDERICK S. MCKAY, D.D.S.
<i>Assistant Visiting Dental Surgeons</i>	<i>Assistant Visiting Dental Surgeons</i>
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JAMES W. HUGHES, D.D.S.	<i>Dental Interne</i>
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Professors W. B. DUNNING (*Chairman*), WAUGH and HOYT

Research

Professors GIES (*Chairman*), BODECKER and SCHROFF

Library and Museum

Professors GILLET (*Chairman*), CHASE, BODECKER and DIAMOND

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ROGER HOWSON, A.M.	<i>Librarian</i>
EDWARD J. GRANT, A.B.	<i>Registrar of the University</i>
CHARLES S. DANIELSON	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.	<i>Director of Works</i>
DAVID M. UPDIKE, M.E.	<i>Superintendent of Buildings and Grounds</i>

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EDWARD S. ELLIOTT, M.D.	<i>Medical Director of the Gymnasium</i>
WILLIAM H. McCASTLINE, M.D.	<i>University Medical Officer</i>
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FREDERICK MILLER, C.E.	<i>Assistant Superintendent of Buildings and Grounds</i>
CHARLES M. FORD, M.D.	<i>Assistant Registrar and Librarian</i>

COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering and Chemistry, with courses leading to the degree of Bachelor of Science, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the New York College of Pharmacy, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

SCHOOL OF DENTISTRY

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the school became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large and well-equipped buildings, at 302-306 East Thirty-fifth Street, and 309-315 East Thirty-fourth Street. These buildings are adjacent, connected by covered passageways, and are designed to meet the requirements of a modern dental school. They provide ample space and equipment for all students in Dentistry, and the course (for women) in Oral Hygiene.

It is the purpose of the School of Dental and Oral Surgery to combine in the highest degree practicable a sound knowledge of the fundamentals of medicine with adequate training in the technical procedures of dental science and art. Two years of college work, including certain specified subjects, are required for admission and the course in dentistry covers four years.

On the completion of his second year the student who has had two years of collegiate training may be a candidate for the degree of Bachelor of Science in Dentistry; on completion of his fourth year, the degree of Doctor of Dental Surgery. Students who elect the combined courses (see p. 15) will receive the degree of Bachelor of Arts.

The students of the School enjoy all the privileges open to members of any other department of the University. They may live in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

The Dental Department with a net floor area of 40,000 square feet is now well under construction in the new Medical Center and is planned for completion so that the School can be moved in September 1928, co-incident with moving of the School of Medicine. Thereafter, all instruction will be given under one roof in close relation with the fundamental Biologic Departments and the several hospitals, and will contribute its full share of dental service to the great health center. Thereby an unusual opportunity for the broadest training will be afforded the dental student.

Courses in oral hygiene, offered by the School of Dental and Oral Surgery are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. For full information address Professor Anna V. Hughes, at 302-306 East Thirty-fifth Street.

Advanced courses in dentistry for practitioners will be conducted in the laboratories and infirmaries at 302-306 East Thirty-fifth Street. These courses will be divided into two groups—intensive and protracted—to meet the demands for advanced subjects. For full information address Advanced Courses, School of Dentistry, 302-306 East Thirty-fifth Street.

STUDENTS

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

GRADUATION

Diplomas are issued only at Commencement, and in February and October, or, in the case of the Ph.D. and J.D. degrees, upon the completion of the requirements.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean or Director of the School or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

DEPOSITORY FOR STUDENTS FUNDS

For the convenience and protection of students while in residence at the University, the Bursar is prepared to receive funds for deposit, subject to the printed rules and regulations, copies of which may be obtained at his office upon request. There is no charge for this service other than the exchange on out-of-town checks and drafts.

Personal checks will not be cashed by the University or credit allowed until the money has actually been received from the bank on which the check is drawn. New York drafts, money orders, and travellers' checks may be deposited for collection and withdrawals allowed when the cash is received. Students should provide themselves preferably with money orders, bank drafts on New York, or travellers' checks for the amount of their expenses, and are advised to open an account with the University on registration.

REQUIREMENTS FOR ADMISSION

Application. Students should apply in the spring, if possible, and may use Summer Session courses at Columbia University or elsewhere to make up deficiencies. Application blanks will be furnished by the Registrar's Office of the School of Dental and Oral Surgery.

A collegiate course of at least 72 points is the minimum requirement for admission. The courses taken at college must include the following: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and one year of either French or German.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4* or *6-7*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoology 1-2*—At least two lectures and four hours' laboratory work a week for one year.

The following credentials must be submitted or mailed to the Registrar's Office, School of Dental and Oral Surgery:

1. Application for admission (blank furnished by the School on request). Transcript of courses taken or to be taken must be entered on this blank.

2. Official transcript of college record showing entrance credits, courses taken, and grades received.

3. A certificate of good health and physical qualification.

4. Three full face, unmounted photographs (size about 2 inches by 2 inches).

To meet the State requirements the following must be sent to the school in addition to the above:

1. An application for a qualifying certificate (blank furnished by this School on request).

2. Fee of one dollar (check or money order drawn to the order of the University of the State of New York) covering cost of issuance of the Dental Student Qualifying Certificate.

A student who has met the entrance requirements outlined above and who has thereafter completed satisfactorily two years of professional study in the School of Dentistry may, upon the recommendation of that School, receive the degree of B.S. On the completion of two further years' work in the School of Dentistry the degree of D.D.S. may be conferred. Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Combined Courses—Attention of students who propose to enter the School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in six or seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may in his fourth year take studies in the School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

REGISTRATION

Before attending University courses, every student must present himself at the office of the Registrar, and file a registration blank giving such information as may be required. The periods set aside for registration in each Session are stated in the Academic Calendar found at the end of this Announcement. Registration at a later date is permitted only on the written permission of the Director, satisfactory cause for the delay having been shown.

FEES

The University Statutes provide that tuition fees, the University fee, and laboratory deposits are payable semi-annually in advance. No reduction is made for late registration. Registration will not be complete until such fees are paid. Checks should be drawn to the order of Columbia University and presented in person or mailed to the Office of the Bursar. Payment of fees after the last day of registration (see Academic Calendar) imposes automatically the statutory charge of \$6.00 for this privilege. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

(a) University Fee

For all students (except those in University Extension and Summer Session), for each Winter or Spring Session or for any part thereof . . . \$10
 For students in University Extension exclusively, for a Winter or Spring Session or any part thereof, and for students in a Summer Session or any part thereof . . . \$7

(b) Tuition Fee

For all students, per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed . . . \$10

With the proviso that the minimum fee for a Winter or Spring Session in the case of a student enrolled for ten points or more in the School of Law shall be not less than \$150, and in the case of a student enrolled for the full course in the School of Medicine shall be not less than \$250, and in the case of a student enrolled for the full course in the School of Dental and Oral Surgery not less than \$220.

(c) Fee for Application

For any degree . . . \$20
 For any certificate . . . \$10

(d) Privileges

1. Late registration or late application for a degree or certificate, for deficiency or special examinations or for entrance examinations . . . \$6
2. Deficiency and special examinations . . . \$3

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.

(e) Entrance Examinations—for each series . . . \$6

(f) Rebates

1. The University Fee and the Fee for Application for any degree or certificate shall not be subject to rebate.
2. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fee shall be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a partial return of fees may be authorized by the Registrar.

(g) Student Activities Fee

For all matriculated students in Columbia College, for each Winter or Spring Session, or any part thereof . . . \$10

One-half of the amount received in each Session on account of this fee to be expended on the maintenance of athletic activities, and one-half to be expended on the maintenance of non-athletic activities of students in Columbia College, provided that all such expenditures shall be subject to the authority of the President.

Male students in the Graduate and Professional Schools will be entitled to certain privileges on payment of the Student Activities Fee of \$10, for each Winter or Spring Session or any part thereof.

When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for a deficiency or a special examination, or for a degree, without the pay-

ment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in course, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals, beyond this allowance; and service in washing apparatus, or work by a mechanic.

Supplies. All technique material and regular supplies *must* be purchased from the University upon an order from the instructor. The students will not be allowed to purchase more than is required to complete a case. The quantity and quality are selected with a view to the best possible results and conservation of the students' best interests.

Deposits. A deposit of \$10.00 will be required in each year to cover material and breakage in the laboratories; for each Summer Session, \$5.

Lockers. Each student on entering will be required to supply himself with two combination locks as prescribed by the School. Locks are one dollar each.

ESTIMATED EXPENSES FOR ACADEMIC YEAR

Following is an itemized estimate of expenses of attendance in the School of Dental and Oral Surgery for a full academic year. The tuition, room, board, books, instruments, and laundry figures are based upon actual prevailing rates. The cost of clothes, travel, and incidentals is of course variable, depending upon the tastes and financial situation of the individual, but the figures quoted have been arrived at after a careful study of present conditions.

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	460	460
Room (36 weeks)	212	170
Board (36 weeks)	396	288
Books (See Note)	28	
Instruments (See Note)	120	100
Laundry	50	34
Additional expenses, including clothing, travel, charity, organizations, and sundries	300	200
	<u>1566</u>	<u>1252</u>

NOTES—While it is preferable, it is not absolutely necessary that students purchase any books. All required books may be borrowed from the library.

The total cost of instruments for the four year course is from \$400 to \$480, an average yearly cost of \$100 to \$120. It should be noted that the instruments for the first two years cost from \$240 to \$300 and must be purchased at the beginning of the first year.

Room prices are based on rates in the University Residence Halls. Prices in the neighboring rooming houses are about one-third higher.

Medical advice and treatment of minor ailments is rendered free of charge by the University Medical Office.

Many students reduce their expenses by sending their laundry home weekly via parcel-post.

EXAMINATIONS AND STANDING

Examinations are held at the end of the academic year, and a re-examination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See *Academic Calendar*, p. 24.)

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

A student's performance in course is recorded according to the following grades: A, excellent; B, good; C, fair; F, failure. A, B, C are passing grades.

A student's advancement to the work of a succeeding year is dependent upon the satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the Director of the School.

CONDITIONS FOR ADVANCEMENT

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.
2. A student who fails in only one course may have the opportunity to remove the condition before the following fall. If he fails to do this, he cannot go on with his class, but may repeat all the courses of the year.
3. A student who fails in two of his courses at the end of any academic year will be required to repeat all the courses of that year.
4. No student is allowed more than five years in which to complete the professional work for his degree. He may repeat a year only once during his course, and may not repeat any other year later.

REQUIREMENTS FOR ADMISSION TO ADVANCED STANDING

In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. Students seeking advanced standing will be rated in the class for which they have completed all the prerequisites.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of

D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years (no two of which shall have been begun during the same calendar year) in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dentistry.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address the Chief of Professional Examinations Bureau, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least ten days before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

STUDENT LOANS

Loan funds are provided in limited amount for the assistance of students. Application is made on a blank which may be obtained from the office of the secretary of the University, or in the Appointments Office, East Hall.

LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, and the College of Pharmacy, are all available to students of the University.

A library and study room for dental students is located on the first floor of the Thirty-fifth Street building; it is open from 9 a. m. to 10 p. m. during the college term, except Saturdays, Sundays and Holidays. Saturdays 9 a. m. to 12 m.

MUSEUM

The museum contains a very valuable collection of osteological specimens donated by the Odontological Society of New York, April, 1925. This is one of the most valuable of its kind in this section of the country. It is housed in cases on either side of the library where it is available for study purposes during the active hours of the library.

RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools and Tompkins Hall, situated on Claremont Avenue in immediate proximity to the Campus, with a capacity for 100 graduate students, are residence halls for women.

All the University residence halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Detailed information and advice concerning desirable rooms and boarding places in the vicinity of the campus for both men and women may be obtained by writing to the Residence Bureau, Room M, Earl Hall.

In addition to the dining-halls in John Jay and Johnson the University maintains the following cafeteria restaurants (service à la carte) which furnish wholesome food at moderate rates: The Commons (men and women) University Hall; Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women); Grace Dodge Hall, 121st St. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

A cafeteria lunch service is available from 11 a. m. to 4 p. m. in the basement of the Thirty-fourth Street building, Saturdays, Sundays and holidays excepted.

LOUNGE

A lounge and rest room is located in the basement of the Thirty-fourth Street building and is open at all times for the convenience of students.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floor are located offices for the Chaplain of the University and the Director of Religious Activities, and an auditorium seating 400 people which is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness

must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock.

OUTLINE OF COURSES

Odd numbers indicate courses given during the Winter Session, from September to February; even numbers indicate courses given during the Spring Session, from February to May. Courses numbered both odd and even are given throughout the academic year. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S. in their first and second years, to candidates for the degree of A.B. in Columbia College, and to candidates for the degree of A.M. or Ph.D. Courses numbered from 201 upward are open to candidates for the degree of D.D.S., in their third and fourth years.

The list of the required text-books and necessary individual equipment will be furnished at the time of registration, or earlier upon request. See list of books recommended on p. 23. Standard books for collateral reading may be obtained in the library.

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences, arranged with the object of correlating such new material with that of the standard text-books.

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

ANATOMY

Anatomy 101—General histology and embryology. Lectures, conferences and laboratory work. 12 hours Winter Session. First year. Professor SHARP and staff.

Anatomy 103-104—Anatomy of the extremities, preliminary visceral anatomy. Demonstrations, conferences, recitations and dissection. 8 hours, each Session. First year. Professors SHARP, GALLAUDET and staff.

Anatomy 105—Anatomy of the head, abdomen and thorax. Demonstrations, conferences, recitations and dissection. 8 hours Winter Session. Second year. Professors SHARP, GALLAUDET and staff.

BACTERIOLOGY

Bacteriology 103—General bacteriology and immunology. Second year. 7 hours laboratory per week of Winter Session. Professor GAY and staff.

Bacteriology 105—The principles of epidemiology, infection, immunity, serum diagnosis and therapy. Lectures 3 hours for 15 weeks of Winter Session. Second year. 45 hours. Professor GAY and staff.

BIOLOGICAL CHEMISTRY

(Nutrition)

Biological chemistry 112—General physiological chemistry. Course includes the elements of normal nutrition and dietetics. First year; 1 hour lec-

ture, 2 hour recitation, and 9 hours laboratory per week, Spring Session. Professors GIES, MILLER, KARSHAN, Dr. GOODRIDGE, and assistants.

CROWN AND BRIDGEWORK

Crown and bridgework 201-202—Crown and bridgework. Third year; 1 hour lecture and recitation, 4 hours laboratory per week each Session. Professor HOYT, and assistants.

Crown and bridgework 203-204—Crown and bridgework. Fourth year; 1 hour lecture and recitation and 5 hours clinic per week each Session. Professor HOYT, and assistants.

Crown and bridgework 206—Ceramics. Fourth year; lectures and laboratory, 10 hours, Spring Session. Professors CHASE and SQUIRES.

DENTAL HISTOLOGY AND EMBRYOLOGY

Dental histology and embryology 101-102. Second year. 1 hour lectures and recitations and 2 hours laboratory work per week each Session. Professor BODECKER and assistant.

DENTAL ETHICS, HISTORY, ECONOMICS AND JURISPRUDENCE

Dental history and economics 202. Fourth year; 4 hour lectures, Spring Session. Professor GOZLETT.

Dental ethics and jurisprudence 204. Fourth year; 4 hour lectures, Spring Session. Professor GILLET.

OPERATIVE DENTISTRY

Operative dentistry 101-102—Dental anatomy. First year; 1½ hours lecture, 6½ hours laboratory per week each Session. Professors HARTMAN, DIAMOND and assistants.

Operative dentistry 103-104—Operative dentistry. Second year; 1 hour lectures per week; 6½ hours laboratory per week each Session. Professors HARTMAN and CLONEY and assistants.

Operative dentistry 201-202—Operative dentistry. Third year; 1 hour lecture, 10 hours clinic per week each Session. Professors HARTMAN, CHASE, and assistants.

Operative dentistry 204—Office practice. Third year; 5 hours lectures, Spring Session. Professor MARTIN TRACY.

Operative dentistry 205-206—Operative dentistry. Fourth year; 10 hours clinic per week each Session. Professor HARTMAN and assistants.

Operative dentistry 207—Operative dentistry. 1 hour lecture, Winter Session. Professor HARTMAN.

Operative dentistry 208—Seminar. 1 hour per week Spring Session. Professor HARTMAN.

Operative dentistry 210—Periodontia. Fourth year; 10 hours Spring Session. Professors W. B. DUNNING and HIRSCHFELD.

ORAL SURGERY

Oral surgery 201-202—Oral surgery. Third year; 1 hour lectures and recitations and 2 hours clinic per week each Session. Professors H. S. DUNNING, PARKER and BERGER and Dr. McCAFFREY.

Oral surgery 203-204—Oral surgery. Fourth year; 4 hours lectures and recitations and 2 hours clinic per week each Session. Professors H. S. DUNNING, BERGER, PARKER, Dr. McCAFFREY, and assistants.

ORTHODONTIA

Orthodontia 201-202—Orthodontia. Third year; 1 hour lecture, 2 hour laboratory technic per week Winter Session. Professor WAUGH, and Drs. ALLAN, BARBER, CONOVER, MURPHY and RIAN.

Orthodontia 203-204—Orthodontia. Fourth year; 1 hour lecture, twelve 2½ hour clinic periods each Session. Professor WAUGH and assistants.

PATHOLOGY

Pathology 202—General and special pathology. Second year; 1 hour lecture, 6 hours laboratory per week Spring Session. Professor JOBLING, Drs. LARIMORE, SAPINOSO and assistants.

Pathology 203—Oral pathology. Third year; 2 hours lectures and recitations, 2 hours laboratory work per week Winter Session. Professor SCHROFF and assistants.

PHARMACOLOGY

Pharmacology 251—Pharmacology, pharmacy prescription writing and materia medica. Third year; 2 hours per week Winter Session. Professors LIEB and HYMAN, Drs. BEAVEN and HUMBERT.

Pharmacology 252—Pharmacology and therapeutics. Fourth year; 2 hours lectures and conferences per week Spring Session. Professor SCHROFF, Drs. HUMBERT and BEAVEN.

PHYSIOLOGY

Physiology 101-102—Human physiology. Second year; 3 hours lectures, 3 hours demonstration and recitation and 3 hours laboratory per week each Session. Dr. BURTON-OPITZ and assistants.

PREVENTIVE DENTISTRY

Preventive dentistry 101—Oral hygiene. Second year; 1 hour lecture, 3 hours demonstration and practice per week Winter Session. Professor HUGHES and assistants.

Preventive dentistry 102—Oral prophylaxis. Second year; 3 hours demonstrations and practice per week Spring Session. Professor HUGHES and assistants.

PROSTHETIC DENTISTRY

Prosthetic dentistry 101-102—Principles of prosthetic technic. First year; 1 hour lecture, 9½ hours laboratory per week each Session. Professor HATFIELD and assistants.

Prosthetic dentistry 103-104—Dental metallurgy. First year; 1 hour lecture and recitation, 1 hour demonstration and practical laboratory work per week each Session. Mr. POLUSHKIN.

Prosthetic dentistry 105-106—Prosthetic technic. Second year; 1 hour lecture, 5 hours laboratory per week each Session. Professor HATFIELD and assistants.

Prosthetic dentistry 201-202—Prosthetic dentistry. Third year; 1 hour lecture and recitation, 10 hours laboratory and infirmary per week each Session. Professors ROWE, HOYT and assistants.

Prosthetic dentistry 203-204—Prosthetic dentistry. Fourth year; 1 hour lecture and recitation per week; 9½ hours infirmary each Session. Professor ROWE, HOYT and assistants.

RADIOLOGY

Radiology 201-202—Radiology. Third year; 1 hour lecture and laboratory per week each Session. Professor NESTLER.

THEORY AND PRACTICE OF DENTISTRY

Theory and Practice of Dentistry 202. Fourth year. Lectures, discussions and theses. 2 hours per week, Spring Session. Dean OWRE and assistants.

REFERENCE BOOKS¹

- ANATOMY.** Cunningham; Piersol, *Human Anatomy*, Volumes 1 and 2, seventh edition; Black, *Dental Anatomy*.
- BACTERIOLOGY.** Hiss and Zinsser, *Text-book of Bacteriology*; Park and Williams, *Pathogenic Microorganisms*, 7th edition; Zinsser, *Infection and Resistance*, 3rd edition.
- CROWN AND BRIDGE WORK.** Goslee, *Principles and Practice of Crown and Bridge Work*, 5th edition, 1926; Peeso, *Crown and Bridge Work*, 2nd edition, 1924.
- HISTOLOGY AND EMBRYOLOGY.** Bodecker, *Dental Histology and Embryology*; Noyes, *Dental Histology*; *Histology and Histopathology of the Teeth*; Bailey, *Text-book of Histology*, 6th edition; Bailey and Miller, *Text-book of Embryology*; 4th edition.
- HISTORY AND ETHICS.** J. W. Taylor, *History of Dentistry*, Lee and Febiger, 1922; Edmund Noyes, *Ethics and Jurisprudence for Dentists*, 2nd edition, 1923.
- HYGIENE AND PREVENTIVE DENTISTRY.** Stillman and McCall, *Clinical Periodontia*; Fones, *Mouth Hygiene*, 2nd edition; Hiss and Zinsser, *Infection and Resistance*, last edition.
- OPERATIVE DENTISTRY.** G. V. Black, *Operative Dentistry*, 3rd edition; M. L. Ward, *American Text-book of Operative Dentistry*, 5th edition; C. N. Johnson, *Text-book of Operative Dentistry*, 5th edition; Jordan, *Operative Dentistry for Children*.
- ORAL SURGERY.** Berger: Brophy, *Oral Surgery*; Blair, *Mouth and Jaw*; G. V. I. Brown, *Surgery of Oral Diseases*; Scodder, *Tumors of the Jaw*; Geo. B. Winter, *Exodontia*; Fisher and Reithmuller, *Dental Anesthesia*; Smith, *Block Anesthesia*; Thoma, *Oral Anesthesia*; Paluel J. Flagg, *The Art of Anesthesia*.
- ORTHODONTIA.** Angle, *Treatment of Malocclusions of the Teeth*; 7th edition; Brady, *Chart of the Average Time of Development, Eruption and Absorption of the Teeth*.
- PATHOLOGY.** Endlemand and Wagner, *General and Dental Pathology*, Maccallum, *Text-book of Pathology*; Black, *Special Dental Pathology*; Wells, *Chemical Pathology*.
- PHARMACOLOGY.** *The Laboratory Guide.* Any one of the following text-books: Buckley, *Modern Dental Materia Medica, Pharmacology and Therapeutics*; Prinz, *Dental Materia Medica and Pharmacology*; Bastedo, *Materia Medica, Pharmacology and Therapeutics*; Cushny, *Pharmacology and Therapeutics*; Dixon, *Manual of Pharmacology*; Sollman, *Manual of Pharmacology*.
- PHYSIOLOGY.** Burton-Opitz, *Text-book of Physiology*; Burton-Opitz, *Advanced Lessons in Practical Physiology*, 1921; Starling, *Human Physiology*, last edition; Baylis, *Principles of General Physiology*, last edition.
- PROSTHETIC DENTISTRY.** Campbell, *Full Denture Prosthesis*; Le Gro, *Ceramics*; Prothero, *Prosthetic Dentistry*; Turner, *American Text-Book of Prosthetic Dentistry*; Wilson, *Dental Prosthetics*.
- RADIOLOGY.** Seth I. Hirsch, *Principles and Practice of Roentgenological Technique*; Wendell, *Systematic Development of X-Ray Plates and Films*.

¹These books are obtainable in the Library of the Dental School between the hours of 9 a. m. and 9 p. m.

ACADEMIC CALENDAR

1927-1928

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- July 6 Wednesday. Registration in Summer Session begins.
- July 11 Monday. Twenty-eighth Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.
- August 1 Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
- Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 19 Friday. Twenty-eighth Summer Session ends.
- September 12 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 19 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES) FOR THE WINTER SESSION

- September 21 Wednesday, to October 8, Saturday. For University Extension students desiring credit.
- September 23 Friday, to September 28, Wednesday. For students in the School of Law, the School of Journalism (excepting graduate students), the School of Business (excepting graduate students), and Barnard College.
- September 24 Saturday, to September 28, Wednesday. For students in Education and Practical Arts.
- September 26 Monday, to September 28, Wednesday. For students in Columbia College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 26 Monday, to October 1, Saturday. For Graduate students in Political Science, Philosophy, Pure Science, Business and Journalism.
- The privilege of later registration may be granted after the periods specified on payment of a later registration fee of \$6.00 except in University Extension where students may register later without credit.

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- September 28 Wednesday. Winter Session, 174th year begins.
- September 29 Thursday. Classes begin.
- October 1 Saturday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The

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privilege of later application may be granted on payment of a fee of \$6.

Last day for registration in Education and Practical Arts for Students desiring credit.

- October 4 Tuesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
- October 8 Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Business, and Journalism.
- October 18 Tuesday. Stated meeting of University Council.
- October 22 Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, and Journalism.
- November 8 Tuesday. Election Day, holiday.
- November 22 Tuesday. Annual Thanksgiving Service in St. Paul's Chapel.
- November 24 Thursday, to November 26, Saturday, inclusive. Thanksgiving holidays.
- December 1 Thursday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- December 20 Tuesday. Stated meeting of University Council.
- December 21 Wednesday, to

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- January 3 Tuesday, inclusive. Christmas holidays.
- January 8 Sunday. Annual Commemoration Service in St. Paul's Chapel.
- January 25 Wednesday. Mid-year examinations begin.
- February 1 Wednesday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE SPRING SESSION

- January 24 Tuesday, to January 30, Monday. For students in the School of Medicine.
- February 2 Thursday, to February 18, Saturday. For University Extension students desiring credit.
- February 4 Saturday, to February 7, Tuesday. For all other students. The privilege of later registration may be granted after the periods specified on payment of a later registration fee of \$6 except in University Extension where students may register later without credit.
-
- February 7 Tuesday. Winter Session ends. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- February 8 Wednesday. Spring Session begins. Classes begin.
- February 11 Saturday. Last day for registration in Education and Practical Arts for students desiring credit.
- February 13 Monday. Alumni Day.

1928

- February 18 Saturday. Last day for making changes in program, except for graduate students in Political Science, Philosophy, Pure Science, Journalism, and Business.
- February 21 Tuesday. Stated meeting of University Council.
- February 22 Wednesday. Washington's Birthday, holiday.
- March 1 Thursday. Last day for filing applications for University Fellowships and University Scholarships.
Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- March 3 Saturday. Last day for receiving late applications for registration and for making changes in program for graduate students in Political Science, Philosophy, Pure Science, Business, and Journalism.
- March 10 Saturday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- April 2 Monday. Last day for filing applications for examination for the degrees of Doctor of Philosophy and Doctor of Law to be conferred in June.
- April 5 Thursday, to April 9, Monday, inclusive. Easter holidays.
- April 16 Monday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- April 17 Tuesday. Stated meeting of University Council.
- May 1 Tuesday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
Last day for filing applications for Cutting Fellowships and for scholarships in the Schools of Law, Applied Science, Architecture, and Columbia College.
- May 21 Monday. Final examinations for all courses begin.
- May 23 Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- May 30 Wednesday. Memorial Day, holiday.
- June 3 Sunday. Baccalaureate Service.
- June 4 Monday. Class Day.
- June 6 Wednesday. Commencement Day.
- June 13 Wednesday. Spring Session ends.
- June 18 Monday. Entrance examinations begin.
- July 3 Tuesday. Registration in Summer Session begins.
- July 9 Monday. Twenty-ninth Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.
- August 1 Wednesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 17 Friday. Twenty-ninth Summer Session ends.

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September 10 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.

September 17 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE WINTER SESSION

September 19 Wednesday, to October 6, Saturday. For University Extension students desiring credit.

September 21 Friday, to September 26, Wednesday. For students in the School of Law, the School of Journalism (excepting graduate students), the School of Business (excepting graduate students), and Barnard College.

September 22 Saturday, to September 26, Wednesday. For students in Education and Practical Arts.

September 24 Monday to September 26 Wednesday. For students in Columbia College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.

September 24 Monday, to September 29, Saturday. For Graduate students in Political Science, Philosophy, Pure Science, Business and Journalism.

The privilege of later registration may be granted after the periods specified on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

September 26 Wednesday. Winter Session, 175th year, begins.

September 27 Thursday. Classes begin.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1928-1929

Serial

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1928/2

MEDICAL CENTER
168TH STREET AND BROADWAY
NEW YORK

Columbia University Bulletin of Information

Twenty-eighth Series, No. 47

August 18, 1928

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, New York, under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the Annual Directory of Officers and Students, are issued as Bulletins.

C.P.—6,000—1928.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 302 East 35th Street; telephone Caledonia 1763. After September 1, 1928 to the School of Dental and Oral Surgery, Medical Center, 630 West 168 Street; telephone Billings 6000.



Columbia University Bulletin of Information

SCHOOL OF DENTAL AND ORAL SURGERY

ANNOUNCEMENT

1928-1929

MEDICAL CENTER
168TH STREET AND BROADWAY
NEW YORK

THE SCHOOL OF DENTISTRY

OFFICERS

NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.), Hon.D. (Paris)
President of the University

ALFRED OWRE *Dean and Professor of Dentistry*
D.M.D., Minnesota, 1894; M.D. and C.M., College of Physicians and Surgeons, Minneapolis, 1895; A.B., Minnesota, 1910; F.A.C.D., 1926.
Special Consultant (Dentistry), Presbyterian Hospital Staff.
Member of the Dental Advisory Board, Department of Health, New York City.

LEUMAN M. WAUGH *Associate Dean and Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1922. Consulting Orthodontist, New York Orthopedic Dispensary and Hospital; Member Dental Advisory Board, Department of Health, New York City.

FACULTY

CHARLES F. BODECKER *Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1925.

WILLIAM DARRACH *Dean of the Faculty of Medicine*
A.B., Yale, 1897; A.M. (Hon.), 1920; A.M., Columbia, 1901; M.D., 1901.
Special Consultant (Surgery), Presbyterian Hospital; Consulting Surgeon, Sloane, Greenwich and Beekman Street Hospitals.

HENRY S. DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., N. Y. U., 1915; F.A.C.S., 1924.
Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; New York Hospital; Reconstruction Hospital; Visiting Oral Surgeon, Presbyterian Hospital; Fifth Avenue Hospital; Knickerbocker Hospital; Nassau Hospital; Broad Street Hospital; Vassar Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear and Throat Hospital; St. Luke's Hospital; Roosevelt Hospital and St. Vincent's Hospital.

WILLIAM B. DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1895.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital; Psychiatric Institute, Ward's Island. Director of the Department of Dentistry, New York Orthopedic Dispensary and Hospital.

HENRY W. GILLET *Professor of Dentistry*
D.M.D., Harvard, 1885. Member Dental Advisory Board, Department of Health, New York City.

LEROY L. HARTMAN *Professor of Dentistry and Superintendent of Clinic*
D.D.S., Northwestern, 1913.

ANNA V. HUGHES *Professor of Dentistry*
D.M.D., Tufts, 1909.
Visiting Dental Surgeon, Presbyterian Hospital; Member Dental Advisory Board, Department of Health, New York City.

HAROLD J. LEONARD *Professor of Dentistry*
D.D.S., Minnesota, 1912; B.A., Minnesota, 1915.

ARTHUR T. ROWE *Professor of Dentistry*
D.D.S., Minnesota, 1906.

OTHER OFFICERS OF INSTRUCTION

EDMOND APPLEBAUM *Instructor in Dentistry*
D.D.S., New York University College of Dentistry, 1922.

WALTER R. BEAVEN *Instructor in Pharmacology*
D.D.S., Columbia, 1926.

ADOLPH BERGER *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Chief of Clinic, Oral Surgery Department, Vanderbilt Clinic.
Oral Surgeon to Hospital for Joint Diseases.

SAMUEL BIRENBACH *Instructor in Dentistry*
D.D.S., New York University College of Dentistry, 1917.

MAURICE BUCHBINDER *Instructor of Dentistry*
B.S., City College of New York; D.D.S., Columbia, 1925.

LESTER R. CAHN *Instructor of Dentistry*
D.D.S., New York University, College of Dentistry, 1917.

OSCAR J. CHASE, JR. *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1905.

MOSES DIAMOND *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1914.

ADOLPH ELWYN *Assistant Professor of Anatomy*
B.S., Columbia, 1915; A.M., Columbia, 1917.

HAVEN EMERSON *Professor of Public Health Administration*
A.B., Harvard, 1896; A.M., Columbia, 1899; M.D., 1899.

JOSEPH FOURNIER *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1913.

BERN B. GALLAUDET *Assistant Professor of Anatomy*
A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
Consulting Surgeon, Bellevue Hospital.

FREDERICK P. GAY *Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901; Commander of the Order of the Crown of Belgium.

WILLIAM J. GIES *Research Professor of Biological Chemistry*
B.S., Gettysburg, 1893; M.S., 1896; Sc.D., 1914; LL.D., 1924; Ph.B., Yale, 1894; Ph.D., 1897; LL.D., Baylor, 1924; Fellow, New York Academy of Sciences; Consulting Chemist, New

York Botanical Garden; Member of the Faculties of the New York College of Pharmacy and the New York Teachers College; Pathological Chemist, First Division Bellevue Hospital; Director of Biochemical Research under the auspices of the American, New York State and New York City Dental Societies. Chairman, Dental Advisory Board, Department of Health, New York City.

FREDERICK G. GOODRIDGE *Associate Biological Chemistry*
A.B., Harvard, 1897; M.D., Columbia, 1901; Ph.D., 1915.

WHITTON R. HATFIELD *Assistant Professor of Dentistry*
D.D.S., Pennsylvania, 1918.

I. HIRSCHFELD *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1902.

KATHERINE F. HOLLIS *Instructor in Dentistry*
D.H., Columbia, 1921.

EARLE B. HOYT *Assistant Professor of Dentistry*
D.D.S., Pennsylvania, 1918.

MELVILLE HUMBERT *Instructor in Pharmacology*
A.B., Columbia, 1923; B.S., 1924.

DONALD HUTCHINSON *Instructor of Dentistry*
D.D.S., New York University College of Dentistry, 1922.

HAROLD THOMAS HYMAN *Assistant Professor of Pharmacology*
A.B., Columbia, 1915; M.D., 1917.

JAMES W. JOBLING *Professor of Pathology*
M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical College, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.

MAXWELL KARSHAN *Assistant Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; A.M., Columbia, 1920; Ph.D. 1925.

GEORGE H. KIRBY *Professor of Psychiatry*
B.S., U. of North Carolina, 1896; M.D., Long Island College Hospital, 1899.
Director, New York State Psychiatric Institute and Hospital; Consulting Psychiatrist, U. S. Veteran's Hospital No. 81 and Children's Hospital.

FRED H. KUVER *Instructor of Dentistry*
D.D.S., Columbia, 1926.

CHARLES I. LAMBERT *Associate Professor of Psychiatry*
B.S., Iowa, 1901; A.M., 1903; M.D., 1903.
Chief of Clinic, Psychiatry, Vanderbilt Clinic; Assistant Consultant, Presbyterian Hospital.

CHARLES C. LIEB *Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.

RICHARD W. LINTON *Assistant Professor of Bacteriology*
A.B., Harvard, 1922; A.M., Columbia, 1926; Ph.D., Columbia, 1928.

- FRANCIS S. McCAFFREY *Assistant Professor of Dentistry*
 B.S., Fordham University, 1911; D.D.S., New York College of Dentistry, 1915.
 Visiting Oral Surgeon, St. Vincent's Hospital; Visiting Dental Surgeon, Fordham Hospital;
 Assistant Visiting Dental Surgeon, Presbyterian Hospital; Junior Oral Surgeon, Manhattan
 Eye, Ear, and Throat Hospital; Assistant Attending Oral Surgeon, Vanderbilt Clinic;
 Consulting Oral Surgeon, Manhattan Hospital.
- EDGAR GRIM MILLER, JR. *Associate Professor of Biological Chemistry*
 B.S., Gettysburg, 1911; Ph.D., Columbia, 1913.
- ETHEL MOTT. *Instructor of Pathology*
 Assistant Resident Pathologist, Presbyterian Hospital; B.S., Barnard, 1918, M.D., Columbia,
 1928.
- EDWARD G. MURPHY *Instructor of Dentistry*
 D.D.S., University of Michigan, 1924.
- EDWIN J. NESLER *Assistant Professor of Dentistry*
 D.D.S., Pennsylvania, 1911.
- DOUGLAS B. PARKER *Assistant Professor of Dentistry*
 M.D., Long Island College Hospital Medical School, 1912; D.D.S., Pennsylvania, 1914.
 Associate Surgeon, Long Island College Hospital; Instructor, Surgical Medical School, Long
 Island College Hospital.
- EUGEN P. POLUSHKIN *Instructor in Metallography*
 Met.E., Mining Institute, Petrograd, 1915.
- HERMAN T. PRANGE *Assistant Professor of Dentistry*
 M.E., Stevens, 1918; B.S., Stevens, 1924; D.D.S., Columbia, 1926.
- MAURICE N. RICHTER *Assistant Professor of Pathology*
 Assistant Visiting Pathologist, Presbyterian Hospital; B.S., Columbia, 1919; M.D., Colum-
 bia, 1921.
- PASTOR SAPINOSO *Instructor in Pathology*
 B.S., Oklahoma, 1920; M.D., 1922; M.B., Chicago, 1920.
- JOSEPH SCHROFF *Associate Professor of Dentistry*
 B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
 Assistant Attending Oral Surgeon, Presbyterian Hospital; Attending Oral Surgeon, Vander-
 bilt Clinic; Oral Surgeon, O.P.D., Mt. Sinai Hospital.
- WILLIAM A. SQUIRES *Associate Professor of Dentistry*
 D.D.S., Northwestern, 1907.
- BYRON P. STOOKEY *Assistant Professor in Neurology and Neurosurgery*
 A.B., Southern California, 1908; A.M., Harvard, 1909; M.D., 1913.
 Associate Surgeon, New York Neurological Institute; Associate Professor Neurosurgery,
 N. Y. Post Graduate Medical School and Hospital; Assistant Visiting Surgeon, Bellevue;
 Assistant Surgeon in charge of Neurological Surgery, City Hospital; Assistant Attending
 Neurological Surgeon, Memorial Hospital; Consulting Neurological Surgeon, Vanderbilt
 Clinic, Beekman Street Hospital, Willard Parker Hospital and Associate Consulting Neuro-
 logical Surgeon, St. Luke's Hospital.

OLIVER S. STRONG *Professor of Neurology and Neurohistology and
Instructor in Histology*

A.B., Princeton, 1886; A.M., Columbia, 1892; Ph.D., 1896.
Consultant (Neuropathology), Department of Neurology, Vanderbilt Clinic.

MARTIN C. TRACY *Assistant Professor of Dentistry*

D.M.D., Tufts, 1900.
Visiting Dental Surgeon, Presbyterian Hospital.

WILLIAM D. TRACY *Assistant Professor of Dentistry*

D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.

HORATIO B. WILLIAMS *Dalton Professor of Physiology*

A.B., Syracuse, 1900; M.D., 1905.
Special Consultant, Physiology, Presbyterian Hospital.

INFIRMARY AND LABORATORY ASSISTANTS

Laboratory Technician

ARTHUR N. CROSS
AXEL L. HANSON
HARRY G. YOUNG

Anatomy

IRWIN W. ALPERT, M.D.
NELSON K. BENTON, A.B., M.D.
HAROLD DAVISON, M.D.
ABRAHAM H. FINEMAN, B.S., M.D.
MEYER M. MELICOW, B.S., M.D.
NICHOLAS S. RANSOHOFF, B.S., M.D.

Bacteriology

C. B. COULTER, M.D.

Biological Chemistry

ROWLAND G. FREEMAN, JR., Ph.B.,
M.D.

Oral Pathology

HENRY A. BARTELS, B.S., D.D.S.

Operative Dentistry

HARRY L. KOREN, B.S., D.D.S.
WILLIAM THEMANN, D.D.S.

Oral Surgery

CHARLES J. GALLAGHER, D.D.S.
JACOB GROSSMAN, B.S., D.D.S.
JOSEPH H. JOFFRE, D.D.S.
T. S. MAVROCORDATO, D.D.S., M.D.
ALFRED F. SPITZER, Ph.G., D.D.S.

Orthodontia

JAMES C. ALLAN, D.D.S.
HENRY U. BARBER, JR., D.D.S.
C. STERLING CONOVER, D.D.S.
FRANK E. RIAN, D.D.S.

Pharmacology

WALTER R. BEAVEN, D.D.S.
MELVILLE HUMBERT, A.B., B.S.,
D.D.S.
MICHAEL B. MULINOS, A.B., M.D.

Physiology

[Teachers undecided May 31, 1928.]

Prosthetic Dentistry

CARL H. SCHOOFF, D.D.S.
ARTHUR O. KOVEN, D.D.S.

*Calverway
Hutchinson*

CLINICAL STAFF, PRESBYTERIAN HOSPITAL

Director of the Dental Service

WILLIAM D. TRACY, D.D.S.

CHARLES C. MORRISON, D.D.S.

FREDERICK C. PETERS, D.D.S.

JOSEPH SCHROFF, D.D.S., M.D.

FRANK J. WYNN, D.D.S.

*Special Consultant (Dentistry)*ALFRED OWRE, D.M.D., M.D., C.M.,
A.B., F.A.C.D.*Visiting Oral Surgeon*

HENRY S. DUNNING, M.D., D.D.S.

Visiting Dental Surgeons

WILLIAM B. DUNNING, D.D.S.

ANNA V. HUGHES, D.M.D.

FREDERICK S. MCKAY

MARTIN C. TRACY, D.M.D.

Assistant Visiting Oral Surgeon

JOSEPH SCHROFF, M.D., D.D.S.

Pyorrhea Clinic

FREDERICK S. MCKAY, D.D.S.

Assistant Visiting Dental Surgeons

HOWARD T. APPLGATE, D.D.S.

WILLIAM A. ARATA, D.D.S.

WILLIAM W. HOPKINS, D.D.S.

JAMES W. HUGHES, D.D.S.

N. HENRY LARSON, D.D.S.

FRANCIS S. MCCAFFREY, D.D.S.

Assistant Visiting Dental Surgeons

DAVID B. AST, D.D.S.

MERVIN F. SANDMAN, D.D.S.

ALFRED B. STARK, D.D.S.

Dental Interne

R. A. SEIDEL, D.M.D.

COMMITTEES

*Dental Faculty Section on Graduate Studies in Medicine*Dean OWRE (*Chairman*), Professors BODECKER and WAUGH*Syllabus and Curriculum*Professor LEONARD (*Chairman*), Professors BERGER, BODECKER, HOYT,
LIEB, and PRANGE*Instrument*Professor ROWE (*Chairman*), Professors HARTMAN, HIRSCHFELD and HUGHES*Library and Museum*Professor GILLET (*Chairman*), Professors H. S. DUNNING, JOBLING,
KUEVER and Dr. KOREN*Research Committee*Professor BODECKER (*Chairman*), Professors BERGER and CAHN*Freshman Class—Faculty*Professor HATFIELD (*Chairman*), Professors DETWILER, GALLAUDET,
KARSHAN and Mr. POLUSHKIN

Sophomore Class—Faculty

Professor BODECKER (*Chairman*), Professors HARTMAN, LARIMORE,
LINTON, ROWE, and WILLIAMS

Junior Class—Faculty

Professor PRANGE (*Chairman*), Professor BETZ and Dr. HYMAN

Senior Class—Faculty

Professor HARTMAN (*Chairman*), Professors HOYT, ROWE and SCHROFF

The Dean is a member ex officio of all committees

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SCHOOL OF DENTAL AND ORAL SURGERY OFFICERS OF ADMINISTRATION

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COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering and Chemistry, with courses leading to the degree of Bachelor of Science, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degrees of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degree of Doctor of Dental Surgery; the School of Library Service with courses leading to the degrees of Bachelor of Science and Master of Science; non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the educational system and work of the University include the separate corporations of Barnard College (1889), the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College (1898), including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the New York College of Pharmacy (1904), with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York (1928), an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary (1928), whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three Sessions during the year: the Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education, and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

SCHOOL OF DENTISTRY

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the school became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large buildings, at 302-306 East Thirty-fifth Street, and 309-315 East Thirty-fourth Street in which the school has been and is being housed up to the time of moving into the Medical Center.

It is the purpose of the School of Dental and Oral Surgery to combine in the highest degree practicable a sound knowledge of the fundamentals of medicine with adequate training in the technical procedures of dental science and art. Two years of college work, including certain specified subjects, are required for admission and the course in dentistry covers four years. On completion of the fourth year, the degree of Doctor of Dental Surgery is given. Students who elect the combined courses (see p. 15) will receive the degree of Bachelor of Arts.

The students of the School enjoy all the privileges open to members of any other department of the University. They may live in the University dormitories at Morningside Heights and are eligible to membership in the various social and other organizations of the student body.

The Dental Department with a net floor area of 40,000 square feet occupying the fifth, sixth, and seventh floors of the Vanderbilt Clinic Building, is now well under construction in the new Medical Center and is planned for completion so that the School can be moved in September 1928, coincident with moving of the School of Medicine. Thereafter, all instruction will be given under one roof in close relation with the fundamental Biologic Departments and the several hospitals, and will contribute its full share of dental service to the great health center. Thereby an unusual opportunity for the broadest training will be afforded the dental student.

Courses in oral hygiene, offered by the School of Dental and Oral Surgery are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. For full information address Professor Anna V. Hughes, at 302-306 East Thirty-fifth Street (630 West 168th Street after September 1, 1928).

Some advanced courses in dentistry for practitioners will be conducted in the laboratories and infirmaries at the Medical Center. These courses will be divided into two groups—intensive and protracted—to meet the demands for advanced

subjects. For full information address Advanced Courses, School of Dentistry, 302-306 East Thirty-fifth Street (630 West 168th Street after September 1, 1928.)

STUDENTS

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

GRADUATION

Diplomas are issued only at Commencement and in February and October, or, in the case of the Ph.D. and J.D. degrees, upon the completion of the requirements.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean or Director of the School or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

DEPOSITORY FOR STUDENTS FUNDS

For the convenience and protection of students while in residence at the University, the Bursar is prepared to receive funds for deposit, subject to the printed rules and regulations, copies of which may be obtained at his office upon request. There is no charge for this service other than the exchange on out-of-town checks and drafts.

Personal checks will not be cashed by the University or credit allowed until the money has actually been received from the bank on which the check is drawn. New York drafts, money orders, and travellers' checks may be deposited for collection and withdrawals allowed when the cash is received. Students should provide themselves preferably with money orders, bank drafts on New York, or travellers' checks for the amount of their expenses, and are advised to open an account with the University on registration.

REQUIREMENTS FOR ADMISSION

Application. Students should apply in the spring, if possible, and may use Summer Session courses at Columbia University or elsewhere to make up deficiencies. Application blanks will be furnished by the Registrar's Office of the School of Dental and Oral Surgery. Students are admitted only at the beginning of the winter term in September.

A collegiate course of at least 72 points is the minimum requirement for admission. The courses taken at college must include the following: one year of physics, one year of biology, one year of inorganic chemistry based on college entrance chemistry, one-half year of qualitative analysis, one-half year of organic chemistry, two years of college English, and one year of either French or German.

The courses in physics, chemistry, and biology which are required for admission are represented by the following courses in Columbia College:

Elementary Physics, including laboratory work, *Physics A1-A2*—At least three lectures and two hours' laboratory work a week for one year.

General Inorganic Chemistry, including laboratory work, *Chemistry 3-4* or *6-7*, *Organic Chemistry*, and *Qualitative Analysis*—At least two lectures and six hours' laboratory work a week for one year.

Biology, including laboratory work, *Zoölogy 1-2*—At least two lectures and four hours' laboratory work a week for one year.

Shop practice and technical drawing are earnestly recommended to pre-dental students as two of their elective subjects. These subjects give early training in muscle and eye coördination so necessary in dentistry and so difficult to attain in later years.

The following credentials must be submitted or mailed to the Registrar's Office, School of Dental and Oral Surgery:

1. Application for admission (blank furnished by the School on request). Transcript of courses taken or to be taken must be entered on this blank.
2. Official transcript of college record showing entrance credits, courses taken, and grades received.
3. A certificate of good health and physical qualification.
4. Three full face, unmounted photographs (size about 2 inches by 2 inches).

To meet the State requirements the following must be sent to the school in addition to the above:

1. An application for a qualifying certificate (blank furnished by this School on request).
2. Fee of one dollar (check or money order drawn to the order of the University of the State of New York) covering cost of issuance of the Dental Student Qualifying Certificate.

Students who take their preliminary education in other colleges than Columbia must also elect as part of their course, physics, inorganic chemistry, organic chemistry, qualitative analysis, and general biology.

Classes limited. Sixty students only can be admitted to the Freshman class in dentistry. Students will be chosen in order of fitness for dentistry from those who have applied by September 1 prior to registration.

Combined Courses—Attention of students who purpose to enter the School of Dentistry is called to the program of studies in Columbia College which offers an opportunity to the prospective dental student to take both a collegiate and dental degree in seven years.

Upon receiving 94 points from Columbia College, 64 of which must be for work done in residence, and must include all of the work prescribed for the degree of A.B., a student may in his fourth year take studies in the School of Dentistry and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work. At the end of three additional years in the School of Dentistry the degree of D.D.S. may be conferred.

Students desiring to effect either of these combinations of courses should address the Secretary of Columbia University for more complete information.

The degree of D.D.S. from Columbia qualifies the student for work in the graduate school toward the degree of Master of Science or Master of Arts or Doctor of Philosophy.

REGISTRATION

Before attending University courses, every student must present himself at the office of the Registrar, and file a registration blank giving such information as may be required. The periods set aside for registration in each Session are stated in the Academic Calendar found at the end of this Announcement. Registration at a later date is permitted only on the written permission of the Dean, satisfactory cause for the delay having been shown.

FEES

The University Statutes provide that tuition fees, the University fee, and laboratory deposits are payable semi-annually in advance. No reduction is made for late registration. Registration will not be complete until such fees are paid. Checks should be drawn to the order of Columbia University and presented in person or mailed to the Office of the Bursar. Payment of fees after the last day of registration (see Academic Calendar) imposes automatically the statutory charge of \$6.00 for this privilege. Under the regulations, the privileges of the

University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

(a) University Fee

For all students (except those in University Extension and Summer Session), for each Winter or Spring Session or for any part thereof . . . \$10
 For students in University Extension exclusively, for a Winter or Spring Session or any part thereof, and for students in a Summer Session or any part thereof . . . \$7

(b) Tuition Fee

For all students, per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed . . . \$10

With the proviso that the minimum fee for a Winter or Spring Session in the case of a student enrolled for ten points or more in the School of Law shall be not less than \$150, and in the case of a student enrolled for the full course in the School of Medicine shall be not less than \$250, and in the case of a student enrolled for the full course in the School of Dental and Oral Surgery not less than \$220.

(c) Fee for Application

For any degree . . . \$20
 For any certificate . . . \$10

(d) Privileges

1. Late registration or late application for a degree or certificate, for deficiency or special examinations or for entrance examinations . . . \$6
2. Deficiency and special examinations . . . \$3

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.

(e) Entrance Examinations—for each series . . . \$6

(f) Rebates

1. The University Fee and the Fee for Application for any degree or certificate shall not be subject to rebate.
2. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fee shall be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a partial return of fees may be authorized by the Registrar.

(g) Student Activities Fee

For all male students matriculated in any School of the University in which the first degree is normally granted four years after admission to college, for each Winter or Spring Session, or any part thereof . . . \$10

*One-half of the amount received in each Session on account of this fee to be expended on the maintenance of athletic activities, and one-half to be expended on the maintenance of non-athletic activities of students in Columbia College, provided that all such expenditures shall be subject to the authority of the President.

Male students in the Graduate and Professional Schools will be entitled to certain privileges on payment of the Student Activities Fee of \$10, for each Winter or Spring Session or any part thereof.

When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in course, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals, beyond this allowance; and service in washing apparatus, or work by a mechanic.

Supplies. All technique material and regular supplies *must* be purchased from the University upon an order from the instructor. The students will not be allowed to purchase more than is required to complete a case. The quantity and quality are selected with a view to the best possible results and conservation of the students' best interests.

Deposits. A deposit of \$10.00 will be required in each year to cover material and breakage in the laboratories; for each Summer Session, \$5.

Lockers. Each student on entering will be required to supply himself with two combination locks as prescribed by the School. Locks are one dollar each.

ESTIMATED EXPENSES FOR ACADEMIC YEAR

Following is an itemized estimate of expenses of attendance in the School of Dental and Oral Surgery for a full academic year. The tuition, room, board, books, instruments, and laundry figures are based upon actual prevailing rates. The cost of clothes, travel, and incidentals is of course variable, depending upon the tastes and financial situation of the individual, but the figures quoted have been arrived at after a careful study of present conditions.

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$460	\$460
Room (36 weeks)	212	170
Board (36 weeks)	396	288
Books (See Note)	28	28
Instruments (See Note)	120	100
Laundry	50	34
Additional expenses, including clothing, travel, charity, organizations, and sundries	300	200
	<u>\$1566</u>	<u>\$1280</u>

The total cost of instruments for the four-year course is from \$400 to \$480, an average yearly cost of \$100 to \$120. It should be noted that the instruments for the first two years cost from \$240 to \$300 and must be purchased at the beginning of the first year.

Room prices are based on rates in the University Residence Halls. Prices in the neighboring rooming houses are about one-third higher.

Medical advice and treatment of minor ailments is rendered free of charge by the University Medical Office.

Many students reduce their expenses by sending their laundry home weekly via parcel post.

EXAMINATIONS AND STANDING

Examinations are held at the end of each trimester, and a reëxamination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See *Academic Calendar*, p. 36.)

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

A student's performance in course is recorded according to the following grades: A, excellent; B, good; C, fair; D, condition; F, failure. A, B, C are passing grades.

A student's advancement to the work of a succeeding year is dependent upon the satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the Dean of the School.

CONDITIONS FOR ADVANCEMENT

1. A student who fails in any one of his courses is not allowed to continue with his class until he has qualified to the satisfaction of the head of that department.

2. A student who fails in only one course may have the opportunity to remove the condition before the course is repeated. If he fails to do this he must repeat the course.

3. A student who fails in two of his courses at the end of any trimester will be required to repeat all the courses of that trimester.

4. No student is allowed more than thirteen trimesters in which to complete the professional work for his degree. He may repeat a trimester only once during his course, and may not repeat any other trimester later.

REQUIREMENTS FOR ADMISSION TO ADVANCED STANDING

In addition to the dental student's certificate mentioned above, based on at least two years of college work completed before beginning the study of dentistry, candidates who have completed, without conditions, one or two years of study in an accepted dental school will be given credit in the School of Dentistry for all courses satisfactorily completed therein, on presentation of proper certificates covering the same. Application blanks will be furnished on request, and prospective students are requested to file their applications early in June, when possible, to avoid delay in matriculating at the beginning of the Session. Students seeking advanced standing will be rated in the class for which they have completed all the prerequisites.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dental and Oral Surgery.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address the Chief of Professional Examinations Bureau, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least ten days before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

STUDENT LOANS

Loan funds are provided in limited amount for the assistance of students. Application is made on a blank which may be obtained from the office of the secretary of the University, or in the Appointments Office, East Hall.

LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, and the College of Pharmacy, are all available to students of the University.

The library for the Department of Dentistry is on the first floor of the School. The Medical library of the College of Physicians and Surgeons, in the adjoining building of that College, is available to dental students on the same basis as to medical students.

RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and

professional schools and Tompkins Hall, situated on Claremont Avenue in immediate proximity to the Campus, with a capacity for 100 graduate students, are residence halls for women.

All the University residence halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Detailed information and advice concerning desirable rooms and boarding places in the vicinity of the campus for both men and women may be obtained by writing to the Residence Bureau, Room M, Earl Hall.

In addition to the dining halls in John Jay and Johnson the University maintains the following cafeteria restaurants (service à la carte) which furnish wholesome food at moderate rates: The Commons (men and women) University Hall; Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women); Grace Dodge Hall, 121st St. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floor are located offices for the Chaplain of the University and the Director of Religious Activities, and an auditorium seating 400 people which is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the aca-

demic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall of Teachers College, are thoroughly equipped with physical training facilities for women students.

RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week day during the academic year, except on Saturdays. The Sunday service is held at four o'clock.

EWELL PRIZE

A prize to be known as the Ella Maria Ewell Medal shall be awarded annually to that student of the School of Dental and Oral Surgery who shall, in the judgment of the Faculty, be most proficient in some subject of dentistry. The branch of dentistry for which the award is made shall be determined by the executors of the Will of Glover C. Beckwith-Ewell.

OUTLINE OF COURSES

For purposes of instruction, the academic year for the School of Dental and Oral Surgery is divided into three trimesters of ten weeks each. These are designated Winter, Middle and Spring and begin the last of September, the seventh of December, and the ninth of March respectively. Registration and collection of fees for the regular academic year are administered, in accordance with the University academic calendar, in September and February at the beginning of the Winter and Spring Sessions, respectively. Students will file their schedules for the Winter and Middle trimesters at the time of the September registration, for the Spring trimester in February.

The letters W, M, S, s in connection with course numbers indicate the trimester in which a course is given. Courses given in the Winter trimester are marked W, in the Middle trimester M, in the Spring trimester S, and in the Summer trimester s. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S. in their first and second years, to candidates for the degree of A.B. in Columbia College, and, where so specified, to candidates for the degree of A.M. or Ph.D., and to graduates in dentistry. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years, and where so specified, to candidates for the degree of A.M. or Ph.D. and to graduates in dentistry.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any trimester in which time is available and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Class Faculty, may substitute elective courses or research in that department for the prescribed courses.

Numbering of subjects in the Department of Dentistry is as follows:

Courses numbered from 100 to 199 are those starting in the first six trimesters, those from 200 to 299 are those wholly in the last six trimesters. The second and third digits number the subjects of the department, placing the divisions of the department in alphabetical order.

For students already in the second, third or fourth years, the course letters and hours do not correspond in all cases with the schedule for the year 1928-29 due to the fact that the curriculum on which they started differs somewhat from the present one and had to be adjusted to it.

SCHEDULE OF CLASSES FOR THE YEAR 1928-29

FIRST YEAR (FRESHMAN) WINTER (FIRST) TRIMESTER

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9-12	Gross Anatomy	Gross Anatomy B Biochem. A		Gross Anatomy	Gross Anatomy A Biochem. B	Gross Anatomy B Biochem. A
12-1	Histology	Biochem.	Histology	Histology	Biochem.	
2-5	Histology	Gross Anatomy A Biochem. B	Histology	Histology	Histology	

SECOND OR MIDDLE TRIMESTER

9-12	Gross Anatomy B Biochem. A	Oral Anatomy A Biochem. B	Oral Histology B Biochem. A	Gross Anatomy A Biochem. B	Oral Anatomy B Biochem. A	Oral Histology A Biochem. B
12-1			Biochem.			Biochem.
2-5	Gross Anatomy	Gross Anatomy	Gross Anatomy	Gross Anatomy	Gross Anatomy	

THIRD OR SPRING TRIMESTER

9-12	Prosthetics	Oral Anatomy	Operative Dent.	Oral Anatomy	Prosthetics	Operative Dentistry Lab.
12-1		Neuro-Anatomy	Out. 12-1 Metallurgy 1-3	Out. 12-1 Metallurgy Lab. 1-3 Sec. C D E or F	Neuro-Anatomy	Neuro-Anatomy
2-5	Oral Anatomy	Prosthetic Dent.	Oral Hist. A 3-5 Metallurgy C D E or F alternately	Oral Hist. B 2-4 Metallurgy 2-4 C D E or F alternately	Oral Anatomy	2-4 Metallurgy C D E or F alternately

SECOND OR SOPHOMORE YEAR—FIRST OR WINTER TRIMESTER

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9-1	Operative Dentistry Lab. 9-12 Bacteriology Lect. 12-1	Surgery Lecture 9-10 Prosthetic Lab. 10-1	Operative Dentistry Lab. 9-12 Bacteriology Lect. 12-1	Surgery Lecture 9-10 Prosthetic Lab. 10-1	Operative Lab. 9-12 Bacteriology Lect. 12-1	Operative Lab. 9-12 Bacteriology Lect. 12-1
2-5	Bacteriology	Prophylaxis A Free B	Bacteriology	Prophylaxis B Free A	Bacteriology	

SECOND OR MIDDLE TRIMESTER

9-1	Prosthetics Lecture 9-10 Operative Clinic 10-1	Prosthetics Lab. 9-12 Physiology 12-1	Oral Diag. Lect. 9-10 Operative Clinic 10-1	Prosthetic Lab. 9-12 Physiology 12-1	Crown and Bridge Lab. 10-1	Operative Dent. Lect. 9-10 Operative Clinic 10-1
2-5	Physiology	Crown and Bridge B Prophylaxis A	Physiology	Crown and Bridge A Prophylaxis B	Physiology	

THIRD OR SPRING TRIMESTER

9-1	Clinic 9:30-12 Physiology 12-1	Oral Surgery Lect. 9-10 Clinic 10-1	Clinic 9:30-12 Physiology 12-1	Clinic 9:30-12 Physiology 12-1	Oral Diag. Lect. 9-10 Clinic 10-1	Prosthetic Lecture 9-10 Clinic 10-1
2-5	Crown and Bridge B Prophylaxis A	Physiology	Physiology	Physiology	Crown and Bridge A Prophylaxis B	

THIRD OR JUNIOR YEAR—FIRST OR WINTER TRIMESTER

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9-10	Crown and Bridge	Surgery	Oral Hygiene	Surgery	Oral Diagnosis	Oral Surgery
10-1	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic
2-5	Crown and Bridge Lab.	Clinic	Clinic	Clinic	Clinic	

SECOND OR MIDDLE TRIMESTER

9-10	Crown and Bridge	Orthodontia	Oral Pathology	Oral Pathology	Oral Pathology	Oral Surgery
10-11	Oral Surgery Lect. 10-11 11-1 free	Clinic	Oral Pathology	Clinic	Oral Pathology	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Clinic	

THIRD OR SPRING TRIMESTER

9-10	Oral Hygiene	Orthodontia	Oral Surgery	Operative Dentistry	Oral Diagnosis	Oral Surgery
10-11	Clinic	Clinic	Clinic	Clinic	Free 10-11 Pharmacy Lect. 1-2	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Pharmacy	

FOURTH OR SENIOR YEAR—FIRST OR WINTER TRIMESTER

MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY

9-10	Therap.	Oral Surgery	Therap.	Operative Dentistry	Oral Surgery	Public Health
10-11	Clinic	Clinic	Clinic	Clinic	Clinic Theory and Practice 1-2	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Clinic	

SECOND OR MIDDLE TRIMESTER

9-10	Oral Surgery	Orthodontia	Oral Surgery	Oral Pathology		Public Health
10-11	Clinic	Clinic	Oral Pathology	Clinic	Oral Pathology	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Clinic	

THIRD OR SPRING TRIMESTER

9-10	Oral Therap.	Orthodontia	Periodontia	Prosthetic	Theory and Practice	Public Health
10-1	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Clinic	

Total clinic hours per week in Spring trimester of Sophomore year = 120 divided into diagnosis (oral) 30, operative dentistry 30, prosthetic dentistry 30, and radiology 30.

Total clinic hours in the Junior year = 810 divided into crown and bridge 120, diagnosis (oral) 30, operative dentistry 300, orthodontia 60, periodontia 60, prosthetic dentistry 90, radiology (oral) 30, surgery (oral) 90, free time 30.

Total clinic hours in the Senior year = 930 divided into crown and bridge 240, diagnosis (oral) 30, hospital dentistry 180, operative dentistry 210, orthodontia 60, prosthetic dentistry 90, electives 90, free time 30.

TABLE OF SUBJECTS IN TERMS OF TRIMESTER POINTS* AND TOTAL CLOCK HOURS

	FIRST YEAR						SECOND YEAR						THIRD YEAR						FOURTH YEAR						Total				
	W			M			S			W			M			S			W			M					S		
	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.	Cr.	Hrs.			Cr.	Hrs.	
Anatomy, Gross...	5	120		9	180																					14	300		
Histol. and Emb.	7	150																									7	150	
Bact. and Immun.																											9	190	
Biochemistry	4	80		5	110		7	130																			5	150	
Dentistry-Anat., Or				1	30	4	120																				16	440	
Crown and Br...									2	60	1	30	2	40	3	70	2	60	2	60	2	60	2	60	2	60	3	50	
Diag. Or.												2	40	1	10														
Hist. Or. and																													
Emb...				1	30	1	30																				2	60	
Hospital Dent...																											6	180	
Hyg.Or. & Proph.								1	30	1	30	1	10	1	10												5	110	
Metalurgy																											3	50	
Operative D...								4	120	3	70	2	60	2	60	2	60	3	70	3	70	3	90	3	90	27	750		
Orthodontia																1½	40	1½	40								3	80	
Pathology Or...																5	90										5	90	
Periodontia																1	30										3	70	
Prosthetics																2	60	2	60	1	30	1	30	2	40	21	570		
Radiology Or...								4	100	3	70	1	30	2	60												6	140	
Surgery Or...																1	30										1	30	
Theory and Pr.D.																2	40	2	50								2	20	
Therapeutics Or.																											1	10	
Electives...																											1	10	
Neurology																											3	90	
Pathology																											3	30	
Pharmacology																5	110										5	110	
Physiology																											6	100	
Practice of Med.																											11	230	
Psycho. Path.																											12	180	
Public Health																											1	10	
Surgery																											3	30	
																											2	20	
Total.....	16	350		16	350		16	380	16	380	16	360	16	380	16	370	16½	380	16½	370	16	340	15	350	16	360	192	4370	

*A trimester point in this school means one hour a week of classroom work for a trimester of ten weeks. Each hour of classroom work is expected to require two hours of home work in preparation. In laboratory and clinical work requiring no outside preparation a point calls for three hours a week of attendance.

The list of the required textbooks and necessary individual equipment will be furnished at the time of registration, or earlier upon request. Standard books for collateral reading may be obtained in the library.

During the course articles that may appear in current dental literature concerning new conceptions and procedures in dental art and science, which seem of sufficient importance, will be called to the attention of students as required collateral reading and conferences, arranged with the object of correlating such new material with that of the standard textbooks.

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

ANATOMY

Anatomy 150W—General histology. 15 hours a week for one trimester. First year. 7 points. Professor A. ELWYN and assistants.

Lectures, conferences and laboratory.

This course is identical with the Medical School course 101W, the two classes being taught together.

Anatomy 151WM—Systematic human anatomy. 12 hours a week Winter trimester, 18 hours a week middle trimester. First year. 14 points. Professor E. B. GALLAUDET and assistants.

Lectures, conferences and laboratory.

This course is identical with the Medical School course 102WMS, the two classes being taught, in part, together.

BACTERIOLOGY

Bacteriology 151W—General medical bacteriology and immunology. 9 hours a week for one trimester. Second year. 3 points. Professor R. W. LINTON and assistant.

Lectures, conferences and laboratory.

This course is the same as the Medical School course 101W in bacteriology up to the point of special problems.

Bacteriology 152W—Principles of epidemiology, infection, immunity, serum diagnosis and therapy. 4 hours a week for one trimester. Second year. 4 points. Professor F. P. GAY.

Lectures given to the dental and medical students together.

BIOLOGICAL CHEMISTRY

Biochemistry 150WM—General physiological chemistry. 12 hours for two semesters. First year. 9 points. Professors W. J. GIES and M. KARSCHAN, and Dr. F. GOODRIDGE and assistants.

Lectures, recitations and laboratory. Course includes the elements of normal nutrition and dietetics.

This course is identical with the Medical School course 102WM, the two classes being taught together for lectures. Laboratory sections are separate.

DENTISTRY

Dentistry 101MS—Oral anatomy. 3 hours a week middle trimester and 12 hours a week Spring trimester. First year. 5 points. Professor M. DIAMOND and assistant.

Lectures, recitations and laboratory on the anatomy and development of the individual teeth and the dentures as a whole.

Dentistry 105MS—Crown and bridge technic. 6 hours a week middle trimester and 3 hours a week Spring trimester. Second year. 3 points. Professors A. T. ROWE and E. B. HOYT and assistants.

Lectures and laboratory on the technical procedures in crown and bridge work.

Prerequisites: *Dentistry 101 (Oral Anatomy)* and *Dentistry 131 (Operative Dentistry Technic.)*

Dentistry 206W—Crown and bridge technic. 3 hours a week for one trimester. Third year. 1 point. Professors A. T. ROWE and E. B. HOYT and assistants.

Continuation of *Dentistry 105*.

Dentistry 207S—Crown and bridge. 1 hour a week for one trimester. Third year. 1 point. Professor E. B. HOYT.

Lectures on the technical procedures of crown and bridge work.

Prerequisites: Same as for *Dentistry 105*.

Dentistry 208M—Crown and bridge. 1 hour a week for one trimester. Third year. 1 point. Professor A. T. ROWE.

Conference course with outside reading on problems in crown and bridge work.

Prerequisites: *Dentistry 206* and *Dentistry 207 (Crown and Bridge courses)*.

Dentistry 209MS—Crown and bridge clinic. A total of 120 hours. Third year. 4 points. Professors A. T. ROWE and E. B. HOYT and assistants.

Prerequisites: *Dentistry 105* and *Dentistry 206 (Crown and Bridge courses)*.

Dentistry 210WMS—Crown and bridge clinic. A total of 180 hours. Fourth year. 6 points. Professors A. T. ROWE and E. B. HOYT and assistants.

Continuation of course *Dentistry 209*.

Dentistry 211—Crown and bridge elective.

See Electives, page 33.

Dentistry 112S—Oral diagnosis. 1 hour a week for one trimester. Second year. 1 point. Professor H. J. LEONARD.

Lecture and conference course in oral examination and charting, history taking, oral diagnosis, and dental x-ray interpretation.

Prerequisite: *Dentistry 101 (Oral Anatomy)*.

Dentistry 213W—Oral diagnosis. 1 hour a week for one trimester. Third year. 1 point. Professor H. J. LEONARD.

Lectures and conferences on the subject of the anatomy, physiology, and mechanics of dental occlusion and the causes, effects, prevention and treatment of abnormal occlusion, excluding orthodontia.

Prerequisite: *Dentistry 101 (Oral Anatomy)*.

Dentistry 114S—Oral diagnosis. A total of 33 hours. Second year. 1 point. Professors H. J. LEONARD and J. O. FOURNIER and assistants.

Laboratory exercises, clinical practice and demonstration in oral examination and charting, history taking, oral diagnosis, dental x-ray interpretation and the study of dental occlusion.

Prerequisite: *Dentistry 101 (Oral Anatomy)*.

Dentistry 115MS—Oral histology and embryology. 3 hours a week for two trimesters. First year. 2 points. Professor C. F. BODECKER and Dr. E. APPLEBAUM.

Lectures and laboratory work on the microscopic structures of the oral tissues and the application of this knowledge to technical dentistry.

Dentistry 216—Oral histology and embryology elective.

See Electives, page 33.

Dentistry 218WMS—Hospital dentistry. A total of 180 hours. Fourth year. 6 points. Professor W. D. TRACY and assistants.

Clinical practice and demonstrations in oral diagnosis, oral hygiene, periodontia, exodontia operative dentistry, and prosthetic dentistry for patients sick in the hospitals or coming to the Out-Patient Department. A series of diagnostic clinics on pathological lesions, injuries, and deformities of the face and jaws is included.

Prerequisite: *Dentistry 112, 213, 114 (Oral Diagnosis)*, *Dentistry 246 (Oral Pathology)*, *Dentistry 251 (Periodontia)* and *Dentistry 171 (Oral Surgery)*.

Dentistry 121WMS—Oral hygiene and prophylaxis. 3 hours a week for three trimesters. Second year. 3 points. Professor A. HUGHES and Miss K. F. HOLLIS and assistants.

Lectures, laboratory, and clinical work on personal dental hygiene and prophylactic dental technic.

Dentistry 222W—Oral hygiene. 1 hour a week for one trimester. Third year. 1 point. Professor H. J. LEONARD.

Lectures and conferences on the application of bacteriology, physiology, and biochemistry to preventive dentistry.

Prerequisites: *Bacteriology 151*, *Bacteriology 152*, *Biochemistry 150*, *Physiology 150* and *Dentistry 121 (Oral Hygiene and Prophylaxis)*.

Dentistry 223M—Oral hygiene. 1 hour a week for one trimester. Third year. 1 point. Professor H. J. LEONARD.

Continuation of Course 222 and including community dentistry.

Dentistry 224—Oral hygiene elective.

See Electives, page 33.

Dentistry 126S—Dental metallurgy. 4 hours a week for one trimester. First year. 3 points. Mr. E. POLUSHKIN.

The study of the sources, preparation, and physical and chemical properties of the metals and alloys used in dental instruments and materials.

Dentistry 227—Metallurgy elective.

See Electives, page 33.

Dentistry 131S—Operative dentistry technic. 6 hours a week for one trimester. First year. 2 points. Professors L. L. HARTMAN and O. J. CHASE, and Dr. M. BUCHBINDER and assistants.

Lectures and laboratory work on operative instruments and materials, their care and uses, root canal technic and the technic of cavity preparations and fillings.

Prerequisites: *Dentistry 101 (Oral Anatomy)*, *Dentistry 115 (Oral Histology and Embryology)*.

Dentistry 132W—Operative dentistry technic. 12 hours a week for one trimester. Second year. 4 points. Professors L. L. HARTMAN and H. T. PRANGE and assistants.

Continuation of course *Dentistry 131*.

Dentistry 133M—Operative dentistry. 1 hour a week for one trimester. Second year. 1 point. Professors L. L. HARTMAN and H. T. PRANGE, and Dr. M. BUCHBINDER.

Lectures and conferences on operative dentistry procedures.

Prerequisites: *Dentistry 131* and *Dentistry 132*.

Dentistry 234S—Operative dentistry. 1 hour a week for one trimester. Third year. 1 point. Professor L. L. HARTMAN.

Lectures and conferences on operative dentistry procedures. Continuation of course *Dentistry 133*.

Prerequisites: *Dentistry 133 (Operative Dentistry)*.

Dentistry 235MS—Operative dentistry clinic. A total of 120 hours. Second year. 4 points. Professors L. L. HARTMAN and H. T. PRANGE, and Dr. M. BUCHBINDER and assistants.

Prerequisites: *Dentistry 131* and *Dentistry 132 (Operative Dentistry Technic)*.

Dentistry 236WMS—Operative dentistry clinic. A total of 180 hours. Third year. 6 points. Professors L. L. HARTMAN and H. T. PRANGE, and Dr. M. BUCHBINDER and assistants.

Continuation of course *Dentistry 235*.

Dentistry 237WMS—Operative dentistry clinic. A total of 240 hours. Fourth year. 8 points. Professors L. L. HARTMAN and H. T. PRANGE and Dr. M. BUCHBINDER and assistants.

Continuation of course *Dentistry 235* and *Dentistry 236*.

Dentistry 238W—Operative dentistry. 1 hour a week for one trimester. Fourth year. 1 point. Professor L. L. HARTMAN.

Conference course on problems in Operative Dentistry.

Prerequisites: *Dentistry 234*, *235* and *236 (Operative Dentistry)*.

Dentistry 239—Operative dentistry elective.

See Electives, page 33.

Dentistry 241MS—Orthodontia. 5 hours a week for two trimesters. Third year. 3 points. Professor L. M. WAUGH, Drs. E. G. MURPHY, and D. HUTCHINSON and assistants.

Lectures, laboratory and clinical demonstrations on orthodontic procedures with special emphasis on the factors which predispose to malocclusion.

Prerequisites: *Anatomy 151*, *Dentistry 101 (Oral Anatomy)*, *Dentistry 115 (Oral Histology and Embryology)* and *Physiology 150*.

Dentistry 242—Orthodontia elective.

See Electives, page 33.

Dentistry 246M—Oral pathology. 7 hours a week for one trimester. Third year. 5 points. Professor J. SCHROFF and Doctor L. R. CAHN and assistant.

Lectures, conferences and laboratory work on the microscopic and macroscopic study of the diseases and deformities of the jaws, mouth and teeth.

Prerequisites: *Anatomy 150 (General Histology)*, *Dentistry 115 (Oral Histology and Embryology)* and *Pathology 150*.

Dentistry 247—Oral pathology elective.

See Electives, page 33.

Dentistry 251WMS—Periodontia clinic. 66 hours. Third year. 2 points. Professors W. B. DUNNING, H. J. LEONARD, and I. HIRSCHFELD.

Lectures and clinical work in the diagnosis and treatment of periodontoclasia.

Prerequisites: *Dentistry 101 (Oral Anatomy)* and *Dentistry 121 (Oral Hygiene and Prophylaxis)*.

Dentistry 252M—Periodontia. 1 hour a week for one trimester. 1 point. Professors W. B. DUNNING, H. J. LEONARD, and I. HIRSCHFELD.

Lectures and conferences on the theory and practice of periodontia.

Prerequisite: *Dentistry 251 (Periodontia)*.

Dentistry 253—Periodontia elective.

See Electives, page 33.

Dentistry 155S—Prosthetic dentistry technic. 9 hours a week for one trimester. First year. 3 points. Professors A. T. ROWE and W. HATFIELD, Dr. F. C. KUPER and assistants.

Lectures and laboratory on the mechanics of denture construction.

Dentistry 156W—Prosthetic dentistry technic. 9 hours a week for one trimester. Second year. 3 points. Professors A. T. ROWE and W. HATFIELD, Dr. KUPER and assistants.

Continuation of course *Dentistry 155*.

Dentistry 157M—Prosthetic dentistry. 1 hour a week for two trimesters. Second year. 2 points. Professors A. T. ROWE and W. HATFIELD.

Lectures and conferences on materials and principles of denture construction.

Prerequisite: *Dentistry 101 (Oral Anatomy)*.

Dentistry 159MS—Prosthetic dentistry clinic. A total of 90 hours. Second year. 3 points. Professor A. T. ROWE and Dr. F. C. KUPER and assistants.

Infirmary practice and demonstrations in denture construction.

Prerequisites: *Dentistry 155* and *156 (Prosthetic Dentistry Technic)* and *Dentistry 157 (Prosthetic Dentistry)*.

Dentistry 260WMS—Prosthetic dentistry clinic. A total of 180 hours. Third year. 6 points. Professor A. T. ROWE and Dr. F. C. KUPER and assistants.

Continuation of course *Dentistry 159*.

Dentistry 261WMS—Prosthetic dentistry clinic. A total of 90 hours. Fourth year. 3 points. Professor A. T. ROWE and Dr. F. C. KUEVER and assistants.

Continuation of courses *Dentistry 159* and *260*.

Dentistry 262S—Prosthetic dentistry. 1 hour a week for one trimester. Fourth year. 1 point. Professor A. T. ROWE.

Conference course on fundamental problems in Prosthetic Dentistry.

Prerequisite: *Dentistry 258 (Prosthetic Dentistry)*.

Dentistry 263—Prosthetic dentistry elective.

See Electives, page 33.

Dentistry 165S—Oral radiology. 3 hours a week for one trimester. Second year. 1 point. Professor E. J. NESTLER.

Lectures and practice on x-ray apparatus and the technic for taking and developing dental x-rays, and the principles of x-ray interpretation.

Dentistry 169M—Principles of surgery. 2 hours a week for one trimester. Second year. 2 points. Professors D. PARKER and F. S. McCAFFERY.

Lectures and conferences on general surgical diseases and the principles of their treatment.

Prerequisite: *Anatomy 151*.

Dentistry 170S—Oral surgery. 1 hour a week for one trimester lecture and a total of 30 hours of clinic. Second year. 2 points. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFERY, S. BIRENBACH and assistants.

Lectures, conferences, and clinical work on local and general anesthesia and exodontia.

Prerequisite: *Dentistry 169*.

Dentistry 271WM—Oral surgery clinic. A total of 60 hours. Third year. 2 points. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFERY, S. BIRENBACH and assistants.

Clinical practice and demonstrations in local anesthesia and exodontia.

Continuation of course *Dentistry 170*.

Dentistry 272W—Oral surgery. 2 hours a week for two trimesters. Third year. 2 points. Professors H. S. DUNNING, A. BERGER, D. PARKER.

Lectures and conferences on oral and maxillo-facial surgery.

Prerequisites: *Dentistry 170* and *271*.

Dentistry 273—Oral surgery elective.

See Electives, page 33.

Dentistry 281WS—Theory and practice of dentistry. 1 hour a week for two trimesters. Fourth year. 2 points. Professors H. W. GILLET, A. OWRE, and M. C. TRACY.

A lecture and conference course including an undergraduate thesis on the history of dentistry, dental ethics, dental economics, dental jurisprudence and other subjects.

Dentistry 285W—Oral therapeutics. 1 hour a week for one trimester. Fourth year. 1 point. Professor J. SCHROFF.

Lectures and conferences on therapeutic agents used in dentistry.

ELECTIVES

For electives in Anatomy, Bacteriology, Biochemistry, Pathology, Pharmacology, Physiology, see *Announcement of the College of Physicians and Surgeons*.

Dentistry 211—Crown and bridge. Time and credit to be arranged. Professors A. T. ROWE and E. B. HOYT.

Further practice and advanced work may be arranged as desired with the approval of the head of the department.

Dentistry 216—Oral histology and embryology. Time and credit to be arranged. Professor C. F. BODECKER.

Special problems in advanced work may be arranged as desired with the approval of Professor Bodecker.

Dentistry 224—Oral hygiene. Time and credit to be arranged. Professor H. J. LEONARD.

Special problems in the fundamental sciences relating to oral hygiene and preventive dentistry may be arranged with the approval of Professor Leonard.

Dentistry 227—Dental metallurgy. Time and credit to be arranged. Mr. E. POLUSHKIN.

Special problems in metallurgy as related to dentistry may be arranged as desired with the approval of Mr. Polushkin.

Dentistry 239—Operative dentistry. Time and credit to be arranged. Professor L. L. HARTMAN.

Special problems and advanced work may be arranged as desired with the approval of Professor Hartman.

Dentistry 242—Orthodontia. Time and credit to be arranged. Professor L. M. WAUGH.

Advanced orthodontia technic and further clinical experience gained by assisting members of the clinical staff. Students who elect to take more than two credits will treat patients under direct supervision.

Dentistry 247—Oral pathology. Time and credit to be arranged. Professor JOSEPH SCHROFF and Dr. L. CAHN and assistant.

Advanced work and special problems in oral pathology or oral bacteriology may be arranged as desired with the approval of Professor Schroff.

Dentistry 253—Periodontia. Time and credit to be arranged. Professors W. B. DUNNING, H. J. LEONARD and I. HIRSCHFELD.

Advanced work and special problems may be arranged as desired with the approval of the staff.

Dentistry 263—Prosthetic dentistry. Time and credit to be arranged. Professor A. T. ROWE.

Special problems and advanced work may be arranged as desired with the approval of Professor Rowe.

Dentistry 274—Oral surgery. Time and credit to be arranged. Professors H. S. DUNNING, D. PARKER, A. BERGER, and F. S. McCAFFERY.

Special problems and advanced work may be arranged as desired with the approval of the staff.

NEUROLOGY

Neurology 150S—Neuroanatomy. 3 hours a week for one trimester. First year. 3 points. Professors O. S. STRONG and B. P. STOOKEY.

Lectures and demonstrations on the gross anatomy, structure, and functions of the central nervous system.

Prerequisites: *Anatomy 150* and *151*.

PATHOLOGY

Pathology 150W—General and special pathology. 11 hours a week for one trimester. Second year. 5 points. Professor J. W. JOBLING and M. N. RICHTER and Dr. E. MOTT and assistants.

Lectures and laboratory.

This course is identical with the Medical School course *Pathology 101* for this trimester. The dental class does not go on into special problems and autopsies which medical students take the following trimester.

Prerequisites: *Anatomy 150* and *151*, *Bacteriology 151* and *152*, *Biochemistry 150*, *Neurology 150* and *Physiology 150*.

PHARMACOLOGY

Pharmacology 250S—General pharmacology. 10 hours a week for one trimester. 6 points. Third year. Professor C. C. LIEB and assistants.

Lectures and laboratory. In this course the pharmacological action of drugs on man and lower animals is studied. Short courses in pharmacy and prescription writing are included.

This course is identical with the Medical School course *Pharmacology 101S*, the two classes being taught together for lectures. Laboratory sections are separate.

Prerequisites: *Anatomy 150* and *151*, *Biochemistry 150*, *Pathology 150* and *Physiology 150*.

Pharmacology 251S—General pharmacology. 4 hours a week for one trimester. Third year. 2 points. Professor C. C. LIEB and assistants.

An abbreviated course offered for the last time in 1928-29 under the old curriculum.

Pharmacology 252W—Pharmacology and therapeutics. 2 hours a week for one trimester. Fourth year. 2 points. Drs. W. R. BEAVEN and M. HUMBERT.

Lectures and conferences offered in the years 1928-29 and 1929-30 to students who have not had *Pharmacology 250*.

Prerequisites: *Pharmacology 251*.

PHYSIOLOGY

Physiology 150MS—Mammalian physiology. 11 hours a week for one trimester and 12 hours a week for the second trimester. Second year. 11 points. Professor H. B. WILLIAMS and assistants.

Lectures, conferences and laboratory.

Prerequisites: *Anatomy 150* and *151*, and *Biochemistry 150*.

PRACTICE OF MEDICINE

Arrangements are being made with the Department of the Practice of Medicine to give the dental students lectures and clinical instruction on clinical medicine beginning with the Seniors in the year 1929-1930. The objects of including these courses are as follows:

1. To familiarize the dental student with the whole field of disease in patients especially in relation to those diseases that manifest symptoms in the mouth or may be caused by lesions in or about the teeth.
2. To acquaint the dental student with the language and methods of the physician in the examination and diagnosis of patients in order that he may be able to coöperate in the most intelligent manner possible in the handling and treatment of patients.
3. To inculcate the idea in the dental student's mind that his work is primarily the maintenance of health and the treatment of disease so far as lies in his field and not primarily the stopping of holes in the teeth.

PSYCHOPATHOLOGY

Psychopathology 150S—1 hour a week for one trimester. Second year. 1 point. Professors G. H. KIRBY and C. I. LAMBERT.

Lectures on the structural basis for mind; the instincts and emotions; development of the personality; social adjustment, failures in adjustment, compensatory reactions; types of abnormal behavior. Emotional neurotic and personality factors in physical illness. Functional disorders with special reference to dental practice. General principles of mental hygiene.

PUBLIC HEALTH

Public Health 250WMS—Preventive medicine and public health administration. 1 hour a week for three trimesters. Fourth year. 3 points. Professor H. EMERSON and assistants.

This course is identical with Medical School course, *Preventive Medicine and Public Health Administration*, 201 M. W. S., the two classes being taught together.

ACADEMIC CALENDAR

1928

- September 10 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 17 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES) FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- September 19 Wednesday, and September 20, Thursday. Placement examinations required of freshmen admitted to Columbia College.
- September 19 Wednesday, to October 6, Saturday. For University Extension students desiring credit.
- September 21 Friday, to September 26, Wednesday. For students in the School of Law, the School of Journalism (excepting graduate students), the School of Business (excepting graduate students), and Barnard College.
- September 22 Saturday, to September 26, Wednesday. For students in Education and Practical Arts.
- September 24 Monday, to September 26, Wednesday. For students in Columbia College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 24 Monday, to September 29, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business and Journalism.

September 26 Wednesday. Winter Session, 175th year, begins.

September 27 Thursday. Classes begin.

September 29 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.

October 1 Monday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.

October 2 Tuesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.

October 6 Saturday. Last day for making changes in program.

October 16 Tuesday. Stated meeting of University Council.

November 6 Tuesday. Election Day, holiday.

November 27 Tuesday. Annual Thanksgiving Service in St. Paul's Chapel.

November 29 Thursday, to December 1, Saturday, inclusive. Thanksgiving holidays.

- December 1 Saturday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- December 15 Saturday. Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken at mid-year. The privilege of later application may be granted on payment of a fee of \$6.
- December 18 Tuesday. Stated meeting of University Council.
- December 24 Monday, to

1929

- January 6 Sunday, inclusive. Christmas holidays.
- January 13 Sunday. Annual Commemoration Service in St. Paul's Chapel.
- January 23 Wednesday. Mid-year examinations begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE SPRING SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- January 21 Monday, to January 26, Saturday. For students in the School of Medicine.
- January 31 Thursday, to February 16, Saturday. For University Extension students desiring credit.
- February 2 Saturday, to February 5, Tuesday. For all other students.

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- February 1 Friday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- February 5 Tuesday. Winter Session ends.
Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- February 6 Wednesday. Spring Session begins. Classes begin.
- February 9 Saturday. Last day for registration in Education and Practical Arts. For students desiring full credit.
- February 12 Tuesday. Alumni Day.
- February 16 Saturday. Last day for making changes in program.
- February 19 Tuesday. Stated meeting of University Council.
- February 22 Friday. Washington's Birthday, holiday.
- March 1 Friday. Last day for filing applications for Fellowships and University Scholarships.
Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- March 11 Monday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of fee of \$6.
- March 28 Thursday, to April 1, Monday, inclusive. Easter holidays.
- April 1 Monday. Last day for filing applications for examination for the degrees of Doctor of Philosophy and Doctor of Law to be conferred in June.

- April 15 Monday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken in May. The privilege of later application may be granted on payment of a fee of \$6.
- April 16 Tuesday. Stated meeting of University Council.
- May 1 Wednesday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
Last day for filing application for scholarships in the Schools of Law, Applied Science, Architecture, and Columbia College.
- May 20 Monday. Final examinations for all courses begin.
- May 22 Wednesday. Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- May 30 Thursday. Memorial Day, holiday.

COMMENCEMENT, JUNE 2 TO 5

- June 2 Sunday. Baccalaureate Service.
- June 3 Monday. Class Day.
- June 4 Tuesday. Conferring of Degrees.
- June 12 Wednesday. Spring Session ends.
- June 17 Monday. Entrance examinations begin.
- July 2 Tuesday. Registration in Summer Session begins.
- July 8 Monday. Thirtieth Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.
- August 1 Thursday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in October.
Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 16 Friday. Thirtieth Summer Session ends.
- September 7 Saturday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 16 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- September 18 Wednesday, and September 19, Thursday. Placement examinations required of freshmen admitted to Columbia College.
- September 18 Wednesday, to October 5, Saturday. For University Extension students desiring credit.

September 20 Friday, to September 25, Wednesday. For students in the School of Law, the School of Journalism (excepting graduate students), the School of Business (excepting graduate students), and Barnard College.

September 21 Saturday, to September 25, Wednesday. For students in Education and Practical Arts.

September 23 Monday, to September 25, Wednesday. For students in Columbia College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.

September 23 Monday, to September 28, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business and Journalism.

September 25 Wednesday. Winter Session, 176th year begins.

September 26 Thursday. Classes begin.

3.1

Columbia University

BULLETIN OF INFORMATION

Twenty-ninth Series, No. 51

September 21, 1929

SCHOOL OF DENTAL AND ORAL SURGERY

1929-1930



168TH STREET AND BROADWAY
NEW YORK

Columbia University Bulletin of Information

Twenty-ninth Series, No. 51

September 21, 1929

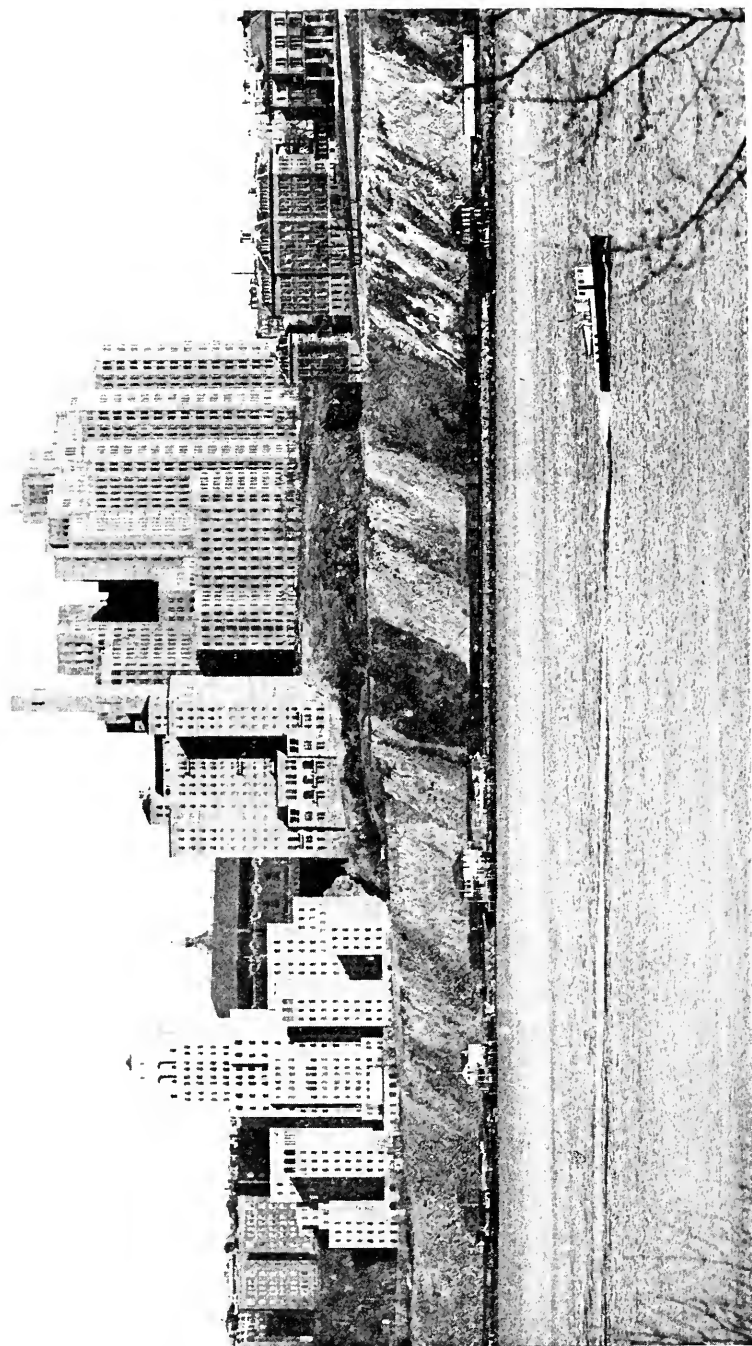
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1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number, and the Announcements of the several Colleges and Schools, and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C.U.P. 6,000—1929.

COMMUNICATIONS

All communications regarding the School of Dentistry, applications for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 630 West 168 Street; telephone Billings 6000.



MEDICAL CENTER, VIEW FROM THE WEST

Columbia University

in the City of New York

SCHOOL OF DENTAL AND ORAL SURGERY

1929-1930



168TH STREET AND BROADWAY
NEW YORK

THE SCHOOL OF DENTISTRY

OFFICERS

NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.), Hon.D. (Paris)
President of the University

ALFRED OWRE *Dean and Professor of Dentistry*
D.M.D., Minnesota, 1894; M.D. and C.M., College of Physicians and Surgeons, Minneapolis, 1895; A.B., Minnesota, 1910.
Special Consultant (Dentistry), Presbyterian Hospital Staff.
Member of the Dental Advisory Board, Department of Health, New York City.

LEUMAN M. WAUGH *Associate Dean and Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1922.
Consulting Orthodontist, New York Orthopedic Dispensary and Hospital; Member Dental Advisory Board, Department of Health, New York City.

FACULTY

ADOLPH BERGER *William Carr Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital. Visiting dental surgeon Presbyterian Hospital.
Oral Surgeon to Hospital for Joint Diseases.

CHARLES F. BODECKER *Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1925.

HANS T. CLARKE *Professor of Biological Chemistry*
D.Sc., London, 1914.
Consultant in Biological Chemistry, Presbyterian Hospital.

WILLIAM DARRACH *Dean of the Faculty of Medicine*
A.B., Yale, 1897; A.M. (Hon.), 1920; A.M., Columbia, 1901; M.D., 1901.
Special Consultant (Surgery), Presbyterian Hospital; Consulting Surgeon, Sloane, Greenwich and Beekman Street Hospitals.

SAMUEL R. DETWILER *Professor of Anatomy*
Ph.B., Yale, 1914; A.M., 1916; Ph.D., 1918.
Consultant in Anatomy, Presbyterian Hospital.

HENRY S. DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., N.Y.U., 1915; F.A.C.S., 1924.
Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; New York Hospital; Reconstruction Hospital; Visiting Oral Surgeon, Presbyterian Hospital; Fifth Avenue Hospital; Knickerbocker Hospital; Nassau Hospital; Broad Street Hospital; Vassar Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear and Throat Hospital; St. Luke's Hospital; Roosevelt Hospital and St. Vincent's Hospital.

WILLIAM B. DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1895.
Visiting Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital; Psychiatric Institute, Ward's Island. Director of the Department of Dentistry, New York Orthopedic Dispensary and Hospital.

- FREDERICK P. GAY *Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901.
Commander of the Order of the Crown of Belgium Bacteriologist, Presbyterian Hospital.
- HENRY W. GILLET *Professor of Dentistry*
D.M.D., Harvard, 1885. Member Dental Advisory Board, Department of Health, New York City.
- LEROY L. HARTMAN *Professor of Dentistry*
D.D.S., Northwestern, 1913.
- ANNA V. HUGHES *Professor of Dentistry and in charge
of Courses in Oral Hygiene*
D.M.D., Tufts, 1909.
Visiting Dental Surgeon, Presbyterian Hospital; Member Dental Advisory Board, Department of Health, New York City.
- JAMES W. JOBLING *Professor of Pathology*
M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- CHARLES C. LIEB *Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
Consultant, Pharmacology, Presbyterian Hospital.
- HAROLD J. LEONARD *Professor of Dentistry*
D.D.S., Minnesota, 1912; B.A., Minnesota, 1915.
Secretary of the Faculty; Visiting Dental Surgeon, Presbyterian Hospital.
- ARTHUR T. ROWE *Professor of Dentistry*
D.D.S., Minnesota, 1906.
Visiting Dental Surgeon, Presbyterian Hospital.
- PHILIP EDWARD SMITH *Professor of Anatomy*
B.S., Pomona, 1908; M.S., Cornell, 1910; Ph.D., 1912.
Associate Consultant, Anatomy, Presbyterian Hospital.
- WILLIAM D. TRACY *Professor of Dentistry*
D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- HORATIO B. WILLIAMS *Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905; Sc.D., 1925.
Consultant Physiology, Presbyterian Hospital.

OTHER OFFICERS OF INSTRUCTION

- JAMES C. ALLEN *Instructor in Dentistry*
D.D.S., Royal College of Dental Surgeons, 1913.
- EDMUND APPLEBAUM *Instructor in Dentistry*
D.D.S., New York University College of Dentistry, 1922.
- HENRY U. BARBER *Instructor in Dentistry*
D.D.S., Pennsylvania, 1916.

- HENRY A. BARTELS *Instructor in Dentistry*
B.S., Rhode Island State College, 1917; B.S., Columbia, 1925; D.D.S., 1927.
- WALTER R. BEAVEN *Instructor in Pharmacology*
D.D.S., Columbia, 1926.
- SAMUEL BIRENBACH. *Instructor in Dentistry*
D.D.S., New York University College of Dentistry, 1917.
- MAURICE BUCHBINDER *Instructor in Dentistry*
B.S., City College of New York; D.D.S., Columbia, 1925.
- LESTER R. CAHN *Assistant Professor of Dentistry*
D.D.S., New York University, College of Dentistry, 1917.
- RUSSELL L. CARPENTER *Instructor in Anatomy*
B.S., Tufts, 1924; Ph.D., Harvard, 1928.
- OSCAR J. CHASE, JR. *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1905.
- C. STERLING CONOVER *Instructor in Dentistry*
D.D.S., Pennsylvania, 1918.
- WILLIAM H. CRAWFORD *Associate Professor of Dentistry*
D.D.S., Minnesota, 1923.
- MOSES DIAMOND *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1914.
- ADOLPH ELWYN *Assistant Professor of Neurology*
B.S., Columbia, 1915; A.M., Columbia, 1917.
- HAVEN EMERSON *Professor of Public Health Administration*
A.B., Harvard, 1896; A.M., Columbia, 1899; M.D., 1899.
- JOSEPH O. FOURNIER *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1913.
- BERN B. GALLAUDET *Associate Professor of Anatomy*
A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
Consulting Surgeon, Bellevue Hospital.
- FREDERIC G. GOODRIDGE *Associate in Biological Chemistry*
A.B., Harvard, 1897; M.D., Columbia, 1901; Ph.D., 1915.
- ISADOR HIRSCHFELD *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1902.
Visiting Dental Surgeon, Presbyterian Hospital; Chief, Periodontia Department, New York Hospital for Joint Diseases; Chief, Periodontia Department, Beth Israel Hospital.

- KATHERINE F. HOLLIS** *Instructor of Dentistry*
D.H., Columbia, 1921.
- HOUGHTON B. HOLLIDAY** *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1917. *and Superintendent of Dental Clinics*
Superintendent of Clinics.
- FREDERICK H. HOWARD** *Assistant Professor of Physiology*
M.D., University of Pennsylvania, 1898; A.B., Williams College, 1926.
- EARLE B. HOYT** *Assistant Professor of Dentistry*
D.D.S., Pennsylvania, 1918.
- MELVILLE HUMBERT** *Instructor in Pharmacology*
A.B., Columbia, 1923; B.S., 1924; D.D.S., 1926.
- M. CAROLINE HRUBETZ** *Instructor in Physiology and Pharmacology*
A.B., University of California, 1920; A.M., Columbia, 1928.
- DONALD HUTCHINSON** *Instructor in Dentistry*
D.D.S., New York University College of Dentistry, 1922.
- HAROLD THOMAS HYMAN** *Assistant Professor of Pharmacology*
A.B., Columbia, 1915; M.D., 1917.
- MAXWELL KARSHAN** *Assistant Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; A.M., Columbia, 1920; Ph.D., 1925.
- GEORGE H. KIRBY** *Professor of Psychiatry*
B.S., University of North Carolina, 1896; M.D., Long Island College Hospital, 1899.
Director, New York State Psychiatric Institute and Hospital; Consulting Psychiatrist, U.S. Veteran's Hospital No. 81 and Children's Hospital.
- FRED H. KUVER** *Instructor in Dentistry*
D.D.S., Columbia, 1926.
- CHARLES I. LAMBERT** *Professor of Psychiatric Education*
B.S., Iowa, 1901; A.M., 1903; M.D., 1903.
Chief of Clinic, Psychiatry, Vanderbilt Clinic; Assistant Consultant, Presbyterian Hospital.
- JESSICA P. LELAND** *Assistant in Biological Chemistry*
B.S., Simmons College, 1919; M.A., Columbia, 1928.
- RICHARD W. LINTON** *Assistant Professor of Bacteriology*
A.B., Harvard, 1922; A.M., Columbia, 1926; Ph.D., Columbia, 1928.
- EWING C. McBEATH** *Associate Professor of Dentistry*
D.D.S., Minnesota, 1910; B.M., 1920; M.D., 1921.
- FRANCIS S. McCAFFREY** *Assistant Professor of Dentistry*
B.S., Fordham University, 1911; D.D.S., New York College of Dentistry, 1915.
Visiting Oral Surgeon, St. Vincent's Hospital; Visiting Dental Surgeon, Fordham Hospital;
Visiting Dental Surgeon, Presbyterian Hospital; Junior Oral Surgeon, Manhattan Eye,
Ear, and Throat Hospital; Assistant Attending Oral Surgeon, Vanderbilt Clinic; Consulting
Oral Surgeon, Manhattan Hospital.

- EDGAR GRIM MILLER, JR. *Associate Professor of Biological Chemistry*
B.S., Gettysburg, 1911; Ph.D., Columbia, 1913.
- DAVID D. MOORE *Assistant in Medicine*
A.B., Princeton, 1921; M.D., Columbia 1924.
- ETHEL A. MOTT *Instructor in Pathology*
B.S., Barnard, 1918; M.D., Columbia, 1928.
Assistant Resident Pathologist, Presbyterian Hospital.
- EDWARD G. MURPHY *Instructor in Dentistry*
D.D.S., University of Michigan, 1924.
- EDWIN J. NESTLER *Assistant Professor of Dentistry*
D.D.S., Pennsylvania, 1911.
- WALTER W. PALMER *Bard Professor of the Practice of Medicine*
B.S., Amherst, 1905; Sc.D., 1922; M.D., Harvard, 1910.
Director of Medical Service, Presbyterian Hospital; Consulting Physician, Sloane Hospital.
- DOUGLAS B. PARKER *Associate Professor of Dentistry*
M.D., Long Island College Hospital Medical School, 1912; D.D.S., Pennsylvania, 1914.
Assistant Visiting Oral Surgeon, Presbyterian Hospital; Instructor in Surgery, College of Physicians and Surgeons; Associate Surgeon, Long Island College Hospital; Instructor in Surgery, Medical School, Long Island College Hospital; Consultant in Oral Surgery, Swedish Hospital, Vassar Hospital.
- EUGEN P. POLUSHKIN *Instructor in Metallography*
Met.E., Mining Institute, Petrograd, 1915.
- HERMAN F. PRANGE *Assistant Professor of Dentistry*
M.E., Stevens, 1918; B.S., Stevens, 1924; D.D.S., Columbia, 1926.
- FRANK E. RIANs *Instructor in Dentistry*
D.D.S., Buffalo, 1905.
- MAURICE N. RICHTER *Assistant Professor of Pathology*
B.S., Columbia, 1919; M.D., Columbia, 1921.
Assistant Visiting Pathologist, Presbyterian Hospital.
- ERNEST L. SCOTT *Associate Professor of Physiology*
B.S., Ohio Wesleyan, 1902; M.S., Chicago, 1911; Ph.D., Columbia, 1914.
- JOSEPH SCHROFF *Associate Professor of Dentistry*
B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
Visiting Dental Surgeon, Presbyterian Hospital; Oral Surgeon, O.P.D., Mt. Sinai Hospital.
- ANNA E. SEVERINGHAUS *Instructor in Anatomy*
B.S., Columbia, 1916; M.A., Columbia, 1919; Ph.D., Columbia, 1927.
- GERALD S. SHIBLEY *Assistant Professor of Medicine*
A.B., Columbia, 1913; M.D., 1916.
Visiting Physician, General Medicine, Vanderbilt Clinic; Attending Physician, Beth David Hospital.

- HAROLD SKELTON. *Instructor in Physiology*
A.B., Columbia, 1922; A.M., 1923; M.D., Columbia, 1927.
- WILLIAM A. SQUIRES *Associate Professor of Dentistry*
D.D.S., Northwestern, 1907.
- BYRON P. STOOKEY *Assistant Professor of Neurology and Neurosurgery*
A.B., Southern California, 1908; A.M., Harvard, 1909; M.D., 1913.
Associate Surgeon, New York Neurological Institute; Associate Professor Neurosurgery,
N.Y. Post Graduate Medical School and Hospital; Assistant Visiting Surgeon, Bellevue;
Assistant Surgeon in charge of Neurological Surgery, City Hospital; Assistant Attending
Neurological Surgeon, Memorial Hospital; Consulting Neurological Surgeon, Vanderbilt
Clinic, Beekman Street Hospital, Willard Parker Hospital and Associate Consulting Neuro-
logical Surgeon, St. Luke's Hospital.
- OLIVER S. STRONG *Professor of Neurology and Neurohistology*
A.B., Princeton, 1886; A.M., Columbia, 1892; Ph.D., 1896.
Consultant (Neuropathology), Department of Neurology, Vanderbilt Clinic.
- MARTIN C. TRACY *Assistant Professor of Dentistry*
D.M.D., Tufts, 1900.
Visiting Dental Surgeon, Presbyterian Hospital.
- CECIL S. VAN VLEET *Assistant in Biological Chemistry*
B.S., University of Washington, 1917.
- JAMES F. B. ZWEIFHAFT *Instructor in Physiology*
A.B., Columbia; A.M., 1923; M.D., Columbia, 1927.

CLINICAL STAFF

- | | |
|------------------------------|------------------------------------|
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| WILLIAM MALARICK, D.M.D. | MORRIS A. ZIMMER, D.D.S. |

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- | | |
|-----------------|---------------------------|
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| DAVID CROWTHER | WILLIAM MARCOTT |
| HANS GROENING | HARRY MULHAUS |
| AXEL L. HANSON | JOSEPH NOEL |
| LEE HANSON | |

PRESBYTERIAN HOSPITAL DENTAL SERVICE

Director

WILLIAM D. TRACY, D.D.S.

Assistant Dental Surgeons

HOWARD T. APPLGATE, D.D.S.

ALBIN R. SEIDEL, D.M.D.

Special Consultant

ALFRED OWRE, A.B.; D.M.D.; M.D.

*Visiting Oral Surgeon**Dental Surgeons*

HENRY S. DUNNING, M.D., D.D.S.

ADOLPH BERGER, D.D.S.

WILLIAM B. DUNNING, D.D.S.

Assistant Visiting Oral Surgeon

ISADORE HIRSCHFELD, D.D.S.

DOUGLAS PARKER, M.D., D.D.S.

ANNA V. HUGHES, D.M.D.

HAROLD J. LEONARD, D.D.S., B.A.

Dental Internes

FRANCIS F. McCAFFERY, D.D.S.

JOSEPH SCHROFF, D.D.S., M.D.

KENNETH F. CHASE, D.M.D.

MARTIN C. TRACY, D.M.D.

ROBERT W. NORTHRUP, D.D.S.

COMMITTEES

*Dental Faculty Section on Graduate Studies in Medicine*Dean OWRE (*Chairman*), Professors BODECKER and WAUGH*Syllabus and Curriculum*Professor LEONARD (*Chairman*), Professors BERGER, BODECKER, HARTMAN, KARSHAN, LIEB, RICHTER, ROWE, and WILLIAMS*Instrument*Professor ROWE (*Chairman*), Professors HARTMAN, HIRSCHFELD and HUGHES*Library and Museum*Professor GILLET (*Chairman*), Professors H. S. DUNNING, JOBLING, KUIVER and PRANGE*Research Committee*Professor BODECKER (*Chairman*), Professors BERGER and CAHN*Freshman Class—Faculty*Professor CRAWFORD (*Chairman*), Professors DETWILER, DIAMOND, GALLAUDET, KARSHAN, Mr. POLUSHKIN and Dr. BUCHBINDER*Sophomore Class—Faculty*Professor BODECKER (*Chairman*), Professors CRAWFORD, HUGHES, LINTON, PRANGE and WILLIAMS*Junior Class—Faculty*Professor LEONARD (*Chairman*), Professors BERGER, HARTMAN, HOYT, HUMBERT, and Dr. HYMAN

Senior Class—Faculty

Professor ROWE (*Chairman*), Professors H. S. DUNNING, HARTMAN and SCHROFF

Committee on Student Affairs

Professor ROWE (*Chairman*), Professors BODECKER, CRAWFORD, HARTMAN, HOLLIDAY and LEONARD

The Dean is a member ex officio of all committees

UNIVERSITY OFFICERS OF ADMINISTRATION

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ADAM LEROY JONES, Ph.D.	<i>Director of University Admissions</i>
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ROGER HOWSON, A.M.	<i>Librarian</i>
EDWARD J. GRANT, A.B.	<i>Registrar of the University</i>
CHARLES S. DANIELSON	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.	<i>Director of Works</i>
DAVID M. UPDIKE, M.E.	<i>Superintendent of Buildings and Grounds</i>
REV. RAYMOND C. KNOX, S.T.D.	<i>Chaplain of the University</i>
EDWARD S. ELLIOTT, M.D.	<i>Medical Director of the Gymnasium</i>
WILLIAM H. McCASTLINE, M.D.	<i>University Medical Officer</i>
HERBERT B. HOWE, B.D., A.M.	<i>Director of Earl Hall</i>
NICHOLAS MCD. McKNIGHT, A.B.	<i>Secretary of Appointments</i>

SCHOOL OF DENTAL AND ORAL SURGERY OFFICERS OF ADMINISTRATION

FREDERICK MILLER, C.E.	<i>Assistant Superintendent of Buildings and Grounds</i>
CHARLES M. FORD, M.D.	<i>Assistant to the Registrar</i>

SCHOOL OF DENTAL AND ORAL SURGERY

GENERAL INFORMATION

HISTORICAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the school became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large buildings, at 302-306 East Thirty-fifth Street, and 309-315 East Thirty-fourth Street in which the school was housed up to the time of moving into the Medical Center.

In September 1928 the School was moved to the Columbia University—Presbyterian Hospital Medical Center where it occupies the three upper floors of the Vanderbilt Clinic wing, giving a net floor area of 40,000 square feet. The College of Physicians and Surgeons in which the fundamental medical science subjects are given adjoins it, the halls of the two being continuous. In adjacent wings the halls of which are continuous with those of the School, the wards and out-patient departments of the Presbyterian and associated hospitals are located, thus giving the closest possible contact and association with all branches of health service. The Dental School Clinic includes as one of its functions the dental care of the patients of the Medical Center hospitals.

It is the purpose of the Faculty to maintain dental education in this School on the same footing as that of other branches of health service. Two years of college work including certain specified subjects are required for admission and of those who have fulfilled the requirements a careful selection is made on the basis of their fitness for the practice of dentistry. The course of dentistry covers four years leading to the degree of Doctor of Dental Surgery. The first two years of the curriculum are taken in the fundamental departments of the College of Physicians and Surgeons. The science courses of these two years are designed to meet the state requirements of the first two years of the medical curriculum. Standards of scholarship are intended to be the same throughout.

STUDENTS

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

GRADUATION

Diplomas are issued only at Commencement and in February and October, (for A.M. candidates at Commencement and in February and December), or, in the case of the Ph.D. degree, upon the completion of the requirements.

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean or Director of the School or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

Letters requesting more detailed information than is contained in this *Announcement*, and all correspondence regarding admission, should be addressed to the Dean, School of Dental and Oral Surgery, 630 West 168th Street.

LIBRARY

A combined medical dental library with spacious reading room containing approximately 50,000 volumes and about the same number of pamphlets occupies a part of three lower stories of the main administration building of the Medical Center and is open to students from 9 a. m. to 10 p. m., on week days.

This library has been formed through the consolidation of departmental libraries to serve more adequately the needs of students, internes and teachers of the combined schools and Presbyterian Hospital Unit. It has a seating capacity for 250 readers.

The periodical room on the upper floor is especially equipped to foster and encourage research work. Here are received 300 current journals, and nearby will be shelved the bound volumes of the most important journals covering a period of approximately ten years. In addition, the more important reference works, the systems of medicine and surgery, some of the German *Handbücher* and other bibliographical tools will be available for intensive research work.

The book collections will be systematically arranged under the Library of Congress classification, and the serials shelved in a strictly alphabetical order, so as to insure quick service and prompt delivery over the loan desk.

The dictionary catalogue in the lobby, with its author, subject and title entries should be freely consulted as a guide and index to the subject matter in the combined collections of the library.

UNIVERSITY PRIVILEGES

As the School of Dental and Oral Surgery is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of other departments of the University. They may reside in the University dormitories at Morningside Heights, and are eligible to membership in the various social and other organizations of the student body.

University Libraries. The libraries on Morningside Heights are open to all students of Dentistry, and books may be borrowed for home use. They include collections on anatomy, biochemistry, public health, nursing, and other subjects related to dentistry, and supplement the special collections available in the College of Physicians and Surgeons, and in the New York Academy of Medicine, Fifth Avenue at 103rd Street. The library of the College of Pharmacy, 115 West Sixty-eighth Street, is also open to students in the School of Dentistry.

University Gymnasium. The gymnasium is situated on Morningside Heights, and is open daily during the academic year, except on Sundays and legal holidays, from 8:30 a. m. to 7 p. m. (Saturdays, 5 p. m.). It is closed for the entire day only on Thanksgiving, Christmas, New Year's, and Good Friday; on all other holidays it is open from 2 to 6 p. m. Instructors are on the floor at all times when the gymnasium is open. Students of the School of Dentistry may enjoy its privileges and have the use of the gymnasium and baths and a private locker.

The student is entitled also to a physical examination by the director, who, on the basis of such an examination, will give advice as to the kind and amount of exercise best adapted to the needs of each man. The gymnasium is large, thoroughly equipped, and under the immediate supervision of the medical director, a professor in the department of physical education. The medical director is assisted by a corps of able instructors.

Employment. The Appointments Office located in Earl Hall is the central placement department of the University through which students and graduates are referred to suitable positions.

It is the function of the Appointments Office to secure for competent men and women students who need to work their way through the University, the opportunity to earn enough for their partial support. It is the experience of the office, however, that it is practically impossible for dental students to undertake outside part-time work during the academic year without seriously jeopardizing their school work and their health. The office consequently does not encourage students of the Dental School to seek employment during the academic year, although it assists competent men and women to secure suitable and remunerative work during the summer. In general the office advises students who are unable to pay the complete cost of attending the Dental School, to withdraw for a year in order to earn the money necessary to enable them to give undivided attention to their academic work.

RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms.

Furnald Hall, the residence hall located on South Field near the corner of Broadway and 116th Street, is open to dental students and other graduate students. This building, which is ten stories in height and 137 feet long by 64 feet wide, offers exceptional living quarters to men in the School.

Johnson Hall, on East Field, near the corner of Morningside Drive and 116th Street, with accommodations of room and board for 360 students in the graduate and professional schools and Tompkins Hall, situated on Claremont Avenue in immediate proximity to the Campus, with a capacity for 100 graduate students, are residence halls for women.

Copies of Residence Halls *Announcements* giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Information regarding rooms outside the University may be secured from the Secretary, P. & S. Club, who will be located in the lobby of the school during the opening weeks of the school year; or from the Residence Bureau which Columbia University maintains in Room M, Earl Hall, for the purpose of assisting students in finding the best accommodations obtainable in the vicinity of the campus.

In addition to the dining-halls in John Jay and Johnson the University maintains the following cafeteria restaurants (service à la carte) which furnish wholesome food at moderate rates: The Commons (men and women) University Hall;

Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women) Grace Dodge Hall, 121 Street. The P. and S. Club at 100 Haven Avenue, three blocks from the Medical Center, is open to dental students for meals, as is one of the cafeterias in the Presbyterian Hospital. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floors are located offices for the Chaplain of the University and the Director of Religious Activities, and an auditorium seating 400 people which is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

BOOKSTORE

The Columbia University Press Bookstore under direct University management, located in the building of the School of Journalism, with entrances at 2960 Broadway and from South Field, supplies students and officers with books and stationery at stated discounts from list prices.

REQUIREMENTS FOR ADMISSION

ADMISSION TO FIRST YEAR OF THE SCHOOL OF DENTAL AND ORAL SURGERY

Eligibility. No definite information regarding eligibility can be given until the completed application blank has been filed by the applicant at the Office of the Dean.

Application. It is desirable that candidates make application before June 1, as on or about June 15 the Committee on Admissions will act upon all applications received up to that date. Application blanks will be furnished by the Dean's Office of the School of Dental and Oral Surgery.

The minimum requirements which will be accepted for admission are attendance for two full years of at least seven months each at an acceptable college of arts and sciences, comprising 72 points as rated by Columbia College. The courses taken at college must include the following:

1 year Physics, aggregating 8 semester hours or more, or one year aggregating 6 semester hours (including laboratory work) based on college entrance Physics.

1 year Inorganic Chemistry, based on college entrance Chemistry, the equivalent of 6 to 10 semester hours.

$\frac{1}{2}$ year Qualitative or Quantitative Analysis, not less than 4 semester hours.

$\frac{1}{2}$ year Organic Chemistry, not less than 4 semester hours.

1 year Biology, aggregating 6 semester hours or more.

2 years English, approximately 10 semester hours total.

2 years French or 2 years German*; this requirement comprises one year of advanced French or German which has been preceded either by a 2 years' study of the same language in high school, or by one year's study of the same language in college. It aggregates 12 to 14 semester hours of either French or German. No other language can be substituted.

Aside from filling the predental requirement, cultural rather than purely scientific courses are recommended to be taken.

Shop practice and technical drawing are earnestly recommended to predental students as two of their elective subjects. These subjects give early training in muscle and eye coördination so necessary in dentistry and so difficult to attain in later years.

Note: A point or semester hour is the equivalent of one hour of lecture or recitation or of two hours of laboratory work per week, per semester. Suitable laboratory work must be included in each of the courses in science.

The following credentials must be submitted or mailed to the Dean's Office, School of Dental and Oral Surgery.

1. Application for admission (blank furnished by this School on request). Transcript of courses taken, or to be taken, must be entered on this blank.

2. An official transcript of college record, showing entrance credits, courses taken and grades received. This is not required until the courses offered for admission are completed, unless specific request for it is previously made.

*The foreign language requirement for the class entering in 1929 will be only 1 year of French or German. Thereafter the two years requirement goes into effect.

3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must show only head and neck.)

The following must be mailed to New York State Department of Education, Albany, New York.

1. An application for qualifying certificate (blank furnished by the school or New York State Department of Education, Albany, New York). This is required by the New York State Department of Education and is forwarded to them with the one dollar fee in requesting issuance of Dental Student Qualifying Certificate for the applicant.

2. Official transcripts of High School records must be furnished *only* in case the college record *fails* to show the college entrance credits.

3. In addition to the above credentials the applicant must furnish a fee of one dollar (check or money order drawn to order of the University of the State of New York, and forwarded with Application for Qualifying Certificate) covering cost of issuance of a Dental Student Qualifying Certificate.

No letters of recommendation are desired unless asked for.

A Dental Student Qualifying Certificate, which is the official evidence of the fulfillment of the requirements of the State, must be authorized before the student begins the first annual dental course counting towards a dental degree. This precludes the admission of the conditioned students.

Owing to the limited number of students who can be accommodated, completion of the requirements for entrance does not guarantee admission. The entire pre-dental record of each student is carefully examined by the Committee on Admissions in order that those who are adjudged most capable of meeting the exacting demands of the course and of the profession of dentistry may be selected.

In order to make the best selection from among the candidates who are eligible for admission all applicants who are eligible will be requested to report at the Dean's office for a personal interview some time prior to the final action of the Committee on Admissions. Those who remain on the eligible list after a personal interview will be given an examination as to mechanical ability and manual dexterity. This test will be given on or about June 15th and again about September 1st. It will consist of exercises in mechanical and free hand drawing, metal filing, and moulding in plastic material and will be conducted by the technic teachers in the school.

Admission of Foreign Students. The credentials submitted must contain evidence of the satisfactory completion of the equivalent to our entrance requirements.

All applicants for a Dental Student Qualifying Certificate on credentials from foreign countries (other than those in which English is the language of the people) must pass a special examination in English. This examination is conducted by the State Department of Education. Information regarding this and the dates on which it is given can be obtained from the Commissioner of Education, Albany, New York.

Evidence of authenticity and the right of possession as well as the original credentials and authenticated translation of the same are required by the State Department of Education and by this office.

If applicant resides in a foreign country, the credentials as outlined below should be prepared and submitted to the Dean's office, 630 West 168th Street, New York City.

If applicant resides in the United States, the credentials should be sent direct to the New York State Department, Albany, N. Y., for the attention of Mr. H. L. Field, and only one copy of affidavit on "Form F" is required.

1. Original credentials from foreign schools.
2. Translations of credentials certified to be correct by a consul or notary public.
3. Affidavit fully describing the applicant's education made out (in duplicate) on blank known as "Form F."

In addition to above credentials the applicant must furnish a fee of one dollar by check or money order drawn to order of University of the State of New York and sent with application for qualifying certificate, covering cost of issuance of a Dental Student Qualifying Certificate.

The following credentials must be submitted at the Dean's Office, 630 West 168th Street, after a Dental Student Qualifying Certificate has been authorized.

1. Application for Admission (blank furnished by this School on request).
2. Letter from the New York State Department of Education to the applicant certifying eligibility for Dental Student Qualifying Certificate.
3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must be head and neck only.)

Applicants may be required to submit to examination at the pleasure of the Faculty.

Admission of foreign students to advanced standing. Foreign students applying for admission to advanced standing must comply with the above requirements, and must, in addition to the above noted credentials, submit transcripts and translations of their dental school work, and a letter from the New York State Department of Education certifying eligibility for admission to advanced standing. They will also be required to submit to examination at the pleasure of the Faculty.

COMBINED COURSES

Combined Courses with Columbia College. Upon receiving 94 points credit, 64 of which must be for work in Columbia College, including all of the work prescribed for the degree in Columbia College, a student may take studies in the first year of the School of Dental and Oral Surgery, provided he can satisfy the stated requirements and is accepted for admission therein, and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work.

No course may be counted toward a professional degree and at the same time be included among those which go to make up the 94 points referred to above.

Combined Course in Dentistry and Medicine. Under the new curriculum the first two years of dentistry include courses in anatomy, physiology, chemistry, bacteriology, pathology, and pharmacology which are similar in character to those required in the medical course, and the minimum standards of entrance and

scholarship are the same as for the medical course. Students desiring to obtain a degree in medicine should consult the bulletin of the College of Physicians and Surgeons.

Admission to Advanced Standing. Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their school of previous residence. Provided they are eligible for the Dental Student Qualifying Certificate required by the New York State Department of Education and can submit evidence of the satisfactory completion of the entrance requirements of this School, candidates who have completed, without condition, one or two years of study in a dental school registered in the State of New York including courses equivalent to those given at this School are eligible to apply for admission to the second or third years respectively.

Owing to the lack of uniformity in the arrangement of the first and second year curricula in the various dental schools a transfer can usually be accomplished with the least adjustment at the end of the second year.

The following credentials must be submitted at the Dean's Office, 630 West 168th Street:

1. Application for admission (blank provided by this School on request) completely filled out.
2. Official transcript of college record including college entrance credits should be sent in with application blank.
3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must be head and neck only.)
4. A properly executed oath of allegiance and application for qualifying certificate (blank provided by this School on request).
5. Official transcript of dental school record must be submitted *on completion* of courses taken.
6. A properly executed advanced standing blank, required by the State of New York (blank furnished by this School) must be executed by proper official of Dental School of previous residence *on completion* of college years certified.
7. In addition to above credentials applicant must furnish a fee of one dollar, check or money order drawn to order of University of the State of New York, covering cost of issuance of Dental Student Qualifying Certificate.

Admission to the Fourth Year is by special permission of the Committee on Administration and is limited to students who have the predental qualifications and have the degree of Doctor of Dental Surgery from an acceptable dental school. Applicants for admission to the Fourth Year must furnish these credentials in addition to the others required for advanced standing.

ADMISSION OF SPECIAL STUDENTS

Students who desire to pursue a special course without graduation may matriculate as special students, but only after approval by the head of the department conducting the course and by the Dean. Such special work will not count in any way as part of the course required of candidates for the degree of Doctor of Dental Surgery.

SUMMER TERM

In 1929, from June 3 to August 23, a summer term of twelve weeks will be offered as an optional course to the class that entered the School in the fall of 1928. The curriculum will be arranged so that the class can graduate in the fall of 1931, having had three years' work of forty-three weeks each year. This course is approved by the New York State Department of Education as an alternative to the four year course. Whether or not this arrangement will be continued for succeeding classes has not been determined. The tuition fee for this summer term will be one third of the regular fee for the academic year and the regular \$10 University fee shall be charged. Registration and payment of fees should be completed not later than the first day of the summer term.

Where groups of students desire to take summer work for the purpose of obtaining advanced standing or other reason, it can be arranged between the group and the instructor with the approval of the Dean provided a sufficient number enroll to make up a class. Tuition fees will be in ratio to the regular year's tuition fee as the time of the work is to the regular academic year. No reduction in the regular year's tuition fee will be made on account of credit obtained in summer courses of less than a full trimester's work.

COURSES IN ORAL HYGIENE

Offered by the School of Dental and Oral Surgery are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least nineteen years of age. For full information address Professor Anna V. Hughes, at 630 West 168 Street.

COURSES FOR GRADUATES

Several types of instruction for graduates are available from the short intensive clinical course of a few days to the protracted graduate courses leading to the degrees of Master of Arts or Doctor of Philosophy.

The faculty is always willing at the request of practitioners to conduct through the Extension Division, short courses in any subjects in dentistry that may be desired, providing it can be done without interference with the regular routine work of the School. It is the business of the Extension Division to arrange such courses to suit the convenience in time and place of those who take and those who give the courses. The fees for such special short courses are on the basis of cost. For information in regard to such courses address Advanced Courses, School of Dental and Oral Surgery, 630 West 168 Street.

It is usually possible in each Division of the School to accommodate two or three dentists who desire to come into the School for study and clinical practice under the regular teaching staff. The period of such work may be as long as the student may desire. The candidate for such work must be an ethical dentist recommended by his local dental society. He is given a visitor's card which entitles him to observe for a few days the clinics in progress and to get acquainted with the

teachers concerned. If he desires to register for work he applies to the Dean who, in conference with the teachers concerned, passes on the application. If acceptable the candidate registers and pays a tuition fee which is proportional to the regular undergraduate year fee as the amount of work registered for is to an undergraduate year of work. Such work does not lead to credit or toward a degree or certificate.

CERTIFICATE OF PROFICIENCY

The School of Dental and Oral Surgery is authorized to grant a Certificate of Proficiency in Dentistry or in a special branch of dentistry selected by the candidate and approved by the School of Dental and Oral Surgery to students who have complied with the requirements stated below.

The requirements for admission shall be graduation from the School of Dental and Oral Surgery or from another acceptable school of dentistry in the United States or in a foreign country and the applicant must be a member in good standing of his national dental association.

The course of study for the Certificate of Proficiency shall include not less than thirty-two points (forty-eight trimester credits) of special work in the clinical branches of dentistry not leading toward a Master's or Doctor's degree, approved by the Dean of the School of Dental and Oral Surgery.

The fee for the year's work leading to the Certificate of Proficiency is the same as for undergraduate work in the school.

Application blanks may be obtained from the office of the Dean, School of Dental and Oral Surgery, 630 West 168 Street. When application for registration is made, the candidate is passed upon by the Dean and the teachers concerned and if accepted, registers in the regular manner.

By extension of the usual time required for qualification for the Master's or Doctor's degree it is possible to combine the work for the Certificate of Proficiency with that for the Graduate degree.

POST GRADUATE WORK IN ORTHODONTIA

Since 1927 a twelve month organized course of clinical practice in Orthodontia has been offered to graduates of acceptable schools of dentistry who are also members in good standing of their national dental associations and who desire to specialize in this field. The Certificate of Proficiency in Orthodontia is granted at the end of the twelve-month period to those who qualify for it.

For special information apply to the Director of the Division of Orthodontia or the Dean, School of Dental and Oral Surgery, 630 West 168 Street.

GRADUATE COURSES

Graduation from acceptable dental schools under the present curriculum of four academic years preceded by two pre-dental college years is accepted by the Graduate Faculties of Columbia University as qualification for admission. For information regarding the curricula leading to the Master of Arts or the Doctor of Philosophy degrees in these faculties see the Graduate Announcement.

REGISTRATION

Before attending University courses, every student must present himself at the office of the Registrar, and file a registration blank giving such information as may be required. The periods set aside for registration in each Session are stated in the Academic Calendar found at the end of this Announcement. Registration at a later date is permitted only on the written permission of the Dean, satisfactory cause for the delay having been shown.

FEES

The University Statutes provide that tuition fees, the University fee, and laboratory deposits are payable semi-annually in advance. No reduction is made for late registration. Registration will not be complete until such fees are paid. Checks should be drawn to the order of Columbia University and presented in person or mailed to the Office of the Bursar. Payment of fees after the last day of registration (see Academic Calendar) imposes automatically the statutory charge of \$6.00 for this privilege. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

(a) University Fee

For all students (except those in University Extension and Summer Session), for each Winter or Spring Session or for any part thereof . . . \$10
 For students in University Extension exclusively, for a Winter or Spring Session or any part thereof, and for students in a Summer Session or any part thereof . . . \$7

(b) Tuition Fee

For all students, per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed . . . \$10

With the proviso that the minimum fee for a Winter or Spring Session in the case of a student enrolled for ten points or more in the School of Law shall be not less than \$150, and in the case of a student enrolled for the full course in the School of Medicine or in the School of Dental and Oral Surgery not less than \$250, and in the case of a student enrolled for the full course in Oral Hygiene not less than \$150.

(c) Fee for Application

For any degree . . . \$20
 For any certificate . . . \$10

(d) Privileges

1. Late registration or late application for a degree or certificate or for deficiency or special examinations . . . \$6
2. Late application for entrance examinations . . . \$1
3. Deficiency and special examinations . . . \$3

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.

(e) Entrance Examinations—for each series . . . \$10

(f) Rebates

1. The University Fee and the Fee for Application for any degree or certificate shall not be subject to rebate.

2. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fee shall be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a partial return of fees may be authorized by the Registrar.

(g) Student Activities Fee

For all male students matriculated in any School of the University in which the first degree is normally granted four years after admission to college, for each Winter or Spring Session, or any part thereof \$10

One-half of the amount received in each Session on account of this fee to be expended on the maintenance of athletic activities, and one-half to be expended on the maintenance of non-athletic activities of students in Columbia College, provided that all such expenditures shall be subject to the authority of the President.

Male students in the Graduate and Professional Schools will be entitled to certain privileges on payment of the Student Activities Fee of \$10, for each Winter or Spring Session or any part thereof.

When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in course, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals, beyond this allowance; and service in washing apparatus, or work by a mechanic. A deposit of \$25.00 will be required in the School of Dental and Oral Surgery each year to cover material and breakage in the laboratories; for each Summer Session \$10.

Supplies. All technique material and regular supplies *must* be purchased from the University upon an order from the instructor. The students will not be allowed to purchase more than is required to complete a case. The quantity and quality are selected with a view to the best possible results and conservation of the students' best interests.

Lockers. Each student on entering will be required to supply himself with two combination locks as prescribed by the School. Locks are one dollar each.

ESTIMATED EXPENSES FOR ACADEMIC YEAR

Following is an itemized estimate of expenses of attendance in the School of Dental and Oral Surgery for a full academic year. The tuition, room, board, books, instruments, and laundry figures are based upon actual prevailing rates. The cost of clothes, travel, and incidentals is of course variable, depending upon

the tastes and financial situation of the individual, but the figures quoted have been arrived at after a careful study of present conditions.

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$530	\$530
Room (36 weeks)	212	170
Board (36 weeks)	396	288
Books (See Note)	40	28
Instruments (See Note)	120	100
Laundry	50	34
Additional expenses, including clothing, travel, charity, organizations, and sundries	300	200
	<hr/> \$1648	<hr/> \$1350

The total cost of instruments for the four-year course is from \$400 to \$480, an average yearly cost of \$100 to \$120. It should be noted that the instruments for the first two years cost from \$240 to \$300 and must be purchased at the beginning of the first year.

Room prices are based on rates in the University Residence Halls. Prices in the neighboring rooming houses are about one third higher.

Medical advice and treatment of minor ailments is rendered free of charge by the University Medical Office.

Many students reduce their expenses by sending their laundry home weekly via parcel post.

EXAMINATIONS AND STANDING

Examinations are held at the end of the academic year, and a reëxamination, for students previously found delinquent, is held during the week preceding the opening of the subsequent academic year. (See *Academic Calendar*, p. 36.)

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four years' course.

A student's performance in course is recorded according to the following grades: A, excellent; B, good; C, fair; D, condition; F, failure. A, B, C are passing grades.

A student's advancement to the work of a succeeding year is dependent upon the satisfactory completion of his practical work, and a record of punctual attendance.

In the event of serious illness or unavoidable absence a student may be permitted to make up his deficiency prior to the subsequent year's session. Application for this privilege must be made in writing to the head of the department in which the student is deficient and will be granted if indorsed by the head of the department and approved by the Dean of the School.

CONDITIONS FOR ADVANCEMENT

The standing which regulates a student's advancement to the work of the succeeding year is determined as follows:

1. A student is not allowed to go on with his class who has failed in any one of his courses, until he has removed that failure to the satisfaction of the head of the department.

2. (a) A student who has failed in two courses in the first year may be allowed reëxamination in the two failed courses provided that the two failures do not include both Anatomy and Biological Chemistry.

(b) A student who has failed in courses of the second, third, or fourth years may be allowed reëxamination in the failed courses provided that the total hours of the courses failed in do not exceed $33\frac{1}{3}$ per cent of the total course hours for that year.

3. A student who has been allowed reëxamination and has failed in the re-examination must repeat the entire work of that year.

4. A student may repeat an entire year only once during his dental course and may not repeat any other year later unless the Faculty of Dentistry votes to suspend this rule in his case on the recommendation of the Class Faculty under which the student has been working.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years or their equivalent in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dental and Oral Surgery.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address the Chief of Professional Examinations Bureau, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least ten days before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

EWELL PRIZE

A prize to be known as the Ella Maria Ewell Medal shall be awarded annually to that student of the School of Dental and Oral Surgery who shall, in the judgment of the Faculty, be most proficient in some subject of dentistry. The branch of dentistry for which the award is made shall be determined by the executors of the will of Glover C. Beckwith-Ewell.

OUTLINE OF COURSES

For purposes of instruction, the academic year for the School of Dental and Oral Surgery is divided into three trimesters of ten weeks each. These are designated First, Second and Third and begin in 1929-1930 on the 25th of September, the 6th of December, and the 9th of March, respectively. The twelve weeks' Summer term begins June 3 and ends August 23. Registration and collection of fees for the regular academic year are administered, in accordance with the University Academic Calendar, in September and February at the beginning of the Winter and Spring Sessions, respectively. Students will file their schedules for the First and Second trimesters at the time of the September registration, for the Third trimester in February.

The letters F, S, T, s in connection with course numbers indicate the trimester in which a course is given. Courses given in the First trimester are marked F, in the Second trimester S, in the Third trimester T, and in the Summer term s. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S. in their first and second years, to candidates for the degree of A.B. in Columbia College, and to graduates in dentistry. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years, and to graduates in dentistry.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any trimester in which time is available and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Class Faculty, may substitute elective courses or research in that department for the prescribed courses.

Numbering of subjects in the Department of Dentistry is as follows:

Courses numbered from 100 to 199 are those starting in the first six trimesters, those from 200 to 299 are those wholly in the last six trimesters. The second and third digits number the subjects of the department, placing the divisions of the department in alphabetical order.

For students already in the second, third or fourth years, the course letters and hours do not correspond in all cases with the schedule for the year 1929-1930, due to the fact that the curriculum on which they started differs somewhat from the revised one.

COURSE OF STUDIES

For purposes of instruction the work of each year is scheduled in three trimesters of ten weeks each from September to May. The administration of registration, collection of fees, etc., by sessions, follows the University Calendar.

The letters F, S, T after a number indicate the trimester in which a course is given. Courses given in the First trimester are marked F, in the Second trimester S, and in the Third trimester T. Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., in their first and second years. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years, and to graduates in dentistry.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any trimester and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the class faculty, may substitute elective courses or research in that department for the prescribed courses.

SUMMARY OF STUDIES

The University reserves the right to make such changes in the Program of Studies at any time as experience may prove desirable.

The following outline, drawn up from the point of view of the student and covering the four years' study, shows the work required of a candidate for the degree of Doctor of Dental Surgery. The number of hours shown indicates the number of lecture and laboratory hours per week for each trimester. The unit of credit used is the Trimester Credit which signifies approximately three hours of work a week for one trimester of ten weeks. For class room work this means one hour in class a week, each requiring an average of two hours of home work. For laboratory or clinical work requiring no outside study it represents three hours of work a week in the School. For a detailed statement of the content of each course, and other questions of detail, the student is referred to the Departmental Statements which follow.

The following schedules of required work hours are subject to change at the pleasure of the Faculty.

FIRST YEAR

AS REVISED TO TAKE EFFECT IN 1929-1930

Department	Subject	1st Tri.			2nd Tri.			3rd Tri.		
		class hrs.	lab. hrs.	Tri. cr.	class hrs.	lab. hrs.	Tri. cr.	class hrs.	lab. hrs.	Tri. cr.
Anatomy 151—Systematic Human Anatomy.....	..	18	9	..	18	9	..	..	..	..
Anatomy 150—Histology and Histogenesis.....	3	12	7	..	..	..	..	..	..	..
Biochemistry 150—Physiological Chemistry.....	2	6	4	2	9	5	..	..
Dentistry 101—Oral Anatomy.....	9	3	..	..
Neurology 150—Neuro-Anatomy.....	3	3	3	..	..
Physiology 150—Human Physiology.....	2	6	4	3	6	5	..	..

SECOND YEAR

AS REVISED TO TAKE EFFECT IN 1930-1931

Department	Subject	1st Tri.			2nd Tri.			3rd Tri.		
		class hrs.	lab. hrs.	Tri. cr.	class hrs.	lab. hrs.	Tri. cr.	class hrs.	lab. hrs.	Tri. cr.
Bacteriology 151—General Bacteriology.....		..	15	5	..	..	..	..	..	..
Bacteriology 152—Principles of Epidemiology.....		4	..	4	..	..	..	..	..	..
Dentistry 101—Oral Anatomy.....		..	6	2	..	..	..	..	..	..
Dentistry 115—Oral Histology.....		..	6	2	..	..	..	..	..	..
Dentistry {	131—Operative Dentistry.....	..	..	..	..	12	4	1	9	4
	132.....	..	..	..	..	..	..	..	..	..
	134.....	..	..	..	..	..	..	..	..	..
Dentistry 155—Prosthetic Dentistry.....		..	..	..	..	6	2	..	12	4
Electives.....		..	..	..	1	..	1	1	..	1
Pathology 150—General and Special Pathology....		2	6	4	4	15	9	..	..	..
Pharmacology 150—General Pharmacology.....		..	..	..	1	..	1	3	6	5
Psychiatry 151—Psycho-pathology.....		..	..	..	..	..	..	1	..	1
Surgery 152—Principles of Surgery.....		..	..	..	..	..	..	2	..	2

THIRD YEAR

AS REVISED TO TAKE EFFECT 1931-1932

Department	Subject	1st Tri.			2nd Tri.			3rd Tri.		
		class hrs.	lab. hrs.	Tri. cr.	class hrs.	lab. hrs.	Tri. cr.	class hrs.	lab. hrs.	Tri. cr.
Dentistry	205									
	207—Crown and Bridge.....	..	9	3	..	6	2	1	6	3
	208a									
Dentistry	212									
	213—Oral Diagnosis.....	1	3	2	1	..	1	..	..	..
	214									
Dentistry	221—Oral Hygiene and Prophylaxis..	..	3	1	..	3	1	..	..	..
Dentistry	226—Dental Metallurgy.....	1	..	1	1	..	1	..	..	..
Dentistry	233—Operative Dentistry.....	..	6	2	..	9	3	1	9	4
	234									
	241—Orthodontia.....	1	3	2	1	3	2	..	..	..
Dentistry	246—Oral Pathology.....	1	..	1	1	3	2	1	3	2
Dentistry	251—Periodontia.....	..	..	..	..	3	1	1	3	2
	252									
	256—Prosthetic Dentistry.....	1	6	3	1	6	3	..	9	3
Dentistry	258a									
	105—Dental Radiology.....	..	3	1	..	..	..	..	..	..
	270—Oral Surgery.....	..	..	..	..	..	..	1	3	2
Electives.....		1	..	1	1	..	1	1	..	1

FOURTH YEAR

AS REVISED TO TAKE EFFECT IN 1932-1933

Department	Subject	1st Tri.			2nd Tri.			3rd Tri.		
		class hrs.	lab. hrs.	Tri. cr.	class hrs.	lab. hrs.	Tri. cr.	class hrs.	lab. hrs.	Tri. cr.
Dentistry {	202—Children's Dentistry.....	1	3	2	..	3	1	..	3	1
	203	..	..	..	..	..	..	..	..	..
Dentistry {	206—Crown and Bridge.....	1	6	3	..	6	2	..	9	3
	208b	..	..	..	..	..	..	..	..	..
Dentistry 222—Oral Hygiene.....		..	..	..	1	..	1	1	..	1
Dentistry 223		..	..	..	..	..	..	..	..	..
Dentistry 234—Operative Dentistry.....		..	9	3	..	9	3	1	9	4
Dentistry {	235	..	6	2	1	9	4	..	6	2
	257—Prosthetic Dentistry.....	..	6	2	1	9	4	..	6	2
Dentistry {	258b	..	..	..	..	..	..	..	..	..
	271—Oral Surgery.....	2	3	2	2	..	1	..	..	..
Dentistry 272		..	..	..	..	..	..	..	..	..
Dentistry 281—Theory and Practice.....		1	..	1	1	..	1	1	..	1
Dentistry 285—Oral Therapeutics.....		..	..	..	..	..	..	1	..	1
Electives.....		..	..	..	3	..	1	..	3	1
Practice of Medicine {	250—Clinical Medicine....	2	3	3	2	..	2	2	..	2
	251	..	..	..	..	..	..	..	..	..
Public Health 250—Public Health Administration.		1	..	1	1	..	1	1	..	1

DEPARTMENTAL STATEMENTS

ANATOMY

Anatomy 150F—Histology and histogenesis. 15 hours a week for one trimester. First year. 7 trimester credits. Professors P. E. SMITH, AURA SEVERINGHAUS and R. L. CARPENTER.

Lectures, conferences and laboratory.

This course is the same as the Medical School course 101F, the two classes being taught together.

Anatomy 151FS—Systematic human anatomy. 18 hours a week for two trimesters. First year. 18 trimester credits. Professor E. B. GALLAUDET and assistants.

Lectures, conferences and laboratory.

This course is equivalent to the Medical School course 102FST.

BACTERIOLOGY

Bacteriology 151F—General medical bacteriology and immunology. 15 hours a week for one trimester. Second year. 5 trimester credits. Professor R. W. LINTON and assistant.

Lectures, conferences and laboratory.

This course is the same as the Medical School course 101F in bacteriology up to the point of special problems. The two trimester credits of work corresponding to that taken by medical students in special problems is yet to be arranged.

Bacteriology 152F—Principles of epidemiology, infection, immunity serum diagnosis and therapy. 4 hours a week for one trimester. Second year. 4 trimester credits. Professor F. P. GAY.

Lectures given to the dental and medical students together.

BIOLOGICAL CHEMISTRY

Biochemistry 150ST—General physiological chemistry. 8 hours a week for one trimester and 11 hours for the second. First year. 9 trimester credits. Professors HANS CLARKE and M. KARSHAN, and Dr. F. GOODRIDGE and assistants.

Lectures, recitations and laboratory. Course includes the elements of normal nutrition and dietetics.

This course is equivalent to the Medical School course 101ST.

DENTISTRY

Dentistry 101—Oral anatomy. 6 hours a week for two trimesters and 3 hours a week for a third. First and second years. 5 trimester credits. Professor M. DIAMOND and assistant.

Lectures, recitations and laboratory on the anatomy and development of the individual teeth and the dentures as a whole.

Dentistry 202—Children's dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor McBEATH.

Lectures and conferences on operative and preventive dental procedures for children, the handling of the child patient and the application of present knowledge of preventive dentistry to the patient.

Dentistry 203—Children's dentistry clinic. 3 hours a week for three trimesters. Fourth year. 3 trimester credits. Professor McBEATH and staff.

Dentistry 205—Crown and bridge technic. A total of approximately 120 hours. Third year. 4 trimester credits. Professors A. T. ROWE, E. B. HOYT, and W. H. CRAWFORD and assistants.

Lectures and laboratory on the technical procedures in crown and bridge work. When the technical work is completed the work is continued as crown and bridge clinic.

Dentistry 206—Crown and bridge. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor E. B. HOYT.

Lectures on the technical procedures of crown and bridge work.

Dentistry 207—Crown and bridge. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor A. T. ROWE.

Conference course with outside reading on problems in crown and bridge work.

Dentistry 208a-b—Crown and bridge clinic. A total of 300 hours. Third and fourth years. 208a—third year. 208b—fourth year. 10 trimester credits. Professors A. T. ROWE, E. B. HOYT, and W. H. CRAWFORD and assistants.

Dentistry 209—Crown and bridge elective.

See Electives, page 34.

Dentistry 212—Oral diagnosis. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor H. J. LEONARD.

Lecture and conference course in oral examination and charting, history taking, oral diagnosis, and dental x-ray interpretation.

Dentistry 213—Oral diagnosis. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor H. J. LEONARD.

Lectures and conferences on the subject of the anatomy, physiology, and mechanics of dental occlusion and the causes, effects, prevention and treatment of abnormal occlusion, excluding orthodontia.

Dentistry 214—Oral diagnosis. A total of 30 hours. Third year. 1 trimester credit. Professors H. J. LEONARD and J. O. FOURNIER and assistants.

Laboratory exercises, clinical practice and demonstration in oral examination and charting, history taking, oral diagnosis, dental x-ray interpretation and the study of dental occlusion.

Dentistry 115—Oral histology and embryology. 6 hours a week for one trimester. Second year. 2 trimester credits. Professor C. F. BODECKER and Dr. E. APPLEBAUM.

Lectures and laboratory work on the microscopic structures of the oral tissues and the application of this knowledge to technical dentistry.

Dentistry 216—Oral histology and embryology elective.

See Electives, page 34.

Dentistry 221—Oral hygiene and prophylaxis. 3 hours a week for two trimesters. Third year. 2 trimester credits. Professor A. HUGHES and Miss K. F. HOLLIS and assistants.

Lectures, laboratory, and clinical work on personal dental hygiene and dental prophylactic technic.

Dentistry 222—Oral hygiene. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor H. J. LEONARD.

Lectures and conferences on the application of bacteriology, physiology, and biochemistry to preventive dentistry.

Dentistry 223—Oral hygiene. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor H. J. LEONARD.

Continuation of Course 222 and including community dentistry.

Dentistry 224—Oral hygiene elective.

See Electives, page 34.

Dentistry 226—Dental metallurgy. 1 hour a week for two trimesters. Third year. 2 trimester credits. Mr. E. POLUSHKIN.

The study of the sources, preparation, and physical and chemical properties of the metals and alloys used in dental instruments and materials.

Dentistry 227—Metallurgy elective.

See Electives, page 34.

Dentistry 131-231—Operative dentistry technic. A total of 180 hours in three trimesters. Second and third years. 131—second year. 231—third year. 6 trimester credits. Professors L. L. HARTMAN and O. J. CHASE, and Dr. M. BUCHBINDER and assistants.

Lectures and laboratory work on operative instruments and materials, their care and uses, root canal technic and the technic of cavity preparations and fillings. When the technic is completed the work is continued as Operative Dentistry Clinic.

Dentistry 132—Operative dentistry. 1 hour a week for one trimester. Second year. 1 trimester credit. Professors L. L. HARTMAN and H. T. PRANGE, and Dr. M. BUCHBINDER.

Lectures and conferences on operative dentistry procedures.

Dentistry 233—Operative dentistry. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor L. L. HARTMAN.

Lectures and conferences on operative dentistry procedures. Continuation of course *Dentistry 133*.

Dentistry 134-234—Operative dentistry clinic. A total of 216 hours. Third and fourth years. 134—third year. 234—fourth year. 18 trimester credits. Professors L. L. HARTMAN and H. T. PRANGE, and Dr. M. BUCHBINDER and assistants.

Dentistry 235—Operative dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor L. L. HARTMAN.

Conference course on problems in Operative Dentistry.

Dentistry 136—Operative dentistry elective.

See Electives, page 34.

Dentistry 241—Orthodontia. 4 hours a week for two trimesters. Third year. 4 trimester credits. Professor L. M. WAUGH, Drs. E. G. MURPHY, and D. HUTCHINSON and assistants.

Lectures, laboratory and clinical demonstrations on orthodontic procedures with special emphasis on the factors which predispose to malocclusion.

Dentistry 242—Orthodontia elective.

See Electives, page 34.

Dentistry 246FST—Oral pathology. 1 hour a week lecture for three trimesters, 3 hours a week laboratory for two trimesters. Third year. 5 trimester credits. Professor J. SCHROFF and Dr. L. R. CAHN and assistant.

Lectures, conferences and laboratory work on the microscopic and macroscopic study of the diseases and deformities of the jaws, mouth and teeth.

Dentistry 247—Oral pathology elective.

See Electives, page 34.

Dentistry 251S—Periodontia clinic. 60 hours. Third year. 2 trimester credits. Professors W. B. DUNNING, H. J. LEONARD, and I. HIRSCHFELD.

Lectures and clinical work in the diagnosis and treatment of periodontoclasia.

Dentistry 252S—Periodontia. 1 hour a week for one trimester. Third year. 1 trimester credit. Professors W. B. DUNNING, H. J. LEONARD, and I. HIRSCHFELD.

Lectures and conferences on the theory and practice of periodontia.

Dentistry 253—Periodontia elective.

See Electives, page 34.

Dentistry 155-255—Prosthetic dentistry technic. A total of approximately 180 hours. Second and third years. 155—first year. 255—second year. 6 trimester credits. Professors A. T. ROWE and W. H. CRAWFORD and Dr. F. C. KUIVER and assistants.

Lectures and laboratory on the mechanics of denture construction. When the technic is completed, the work is continued as Prosthetic Dentistry Clinic.

Dentistry 256—Prosthetic dentistry. 1 hour a week for one trimester. Third year. 2 trimester credits. Professors A. T. ROWE and W. H. CRAWFORD.

Lectures and conferences on materials and principles of denture construction.

Dentistry 257—Prosthetic dentistry. 1 hour a week for one trimester. Third year. 1 trimester credit. Professors A. T. ROWE and W. H. CRAWFORD.

Continuation of course *Dentistry 256*.

Dentistry 258a-b—Prosthetic dentistry clinic. A total of 360 hours. Third and fourth years. 258a—third year. 258b—fourth year. 12 trimester credits. Professor A. T. ROWE and Dr. F. C. KUPER and assistants.

Infirmary practice and demonstrations in denture construction.

Dentistry 259—Prosthetic dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor A. T. ROWE.

Conference course on fundamental problems in Prosthetic Dentistry given toward the end of the clinical work.

Dentistry 260—Prosthetic dentistry elective.

See Electives, page 34.

Dentistry 165—Oral radiology. 3 hours a week for one trimester. Second year. 1 trimester credit. Professor HOUGHTON HOLLIDAY and Dr. EDWIN J. NESTLER.

Lectures and practice on X-ray apparatus and the technic for taking and developing dental X-rays, and the principles of X-ray interpretation.

Dentistry 168—Principles of surgery. 2 hours a week for one trimester. Second year. 2 trimester credits. Professors D. PARKER and F. S. McCAFFERY.

Lectures and conferences in general surgical diseases and the principles of their treatment

Dentistry 270—Oral surgery. 1 hour a week lecture for one trimester. Third year. 1 trimester credit. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFERY, S. BIRENBACH and assistants.

Lectures and conferences on local and general anesthesia and exodontia.

Dentistry 271—Oral surgery clinic. A total of 60 hours. Third and fourth years. 2 trimester credits. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFERY, S. BIRENBACH and assistants.

Clinical practice and demonstrations in local anesthesia and exodontia. Time is also assigned to observation of oral surgical operations and to an organized oral pathology clinic.

Dentistry 272—Oral surgery. 2 hours a week for two trimesters. Fourth year. 2 trimester credits. Professors H. S. DUNNING, A. BERGER, D. PARKER.

Lectures and conferences on oral and maxillo-facial surgery.

Dentistry 273—Oral surgery elective.

See Electives, page 34.

Dentistry 281FST—Theory and practice of dentistry. 1 hour a week for three trimesters. Fourth year. 3 trimester credits. Professors H. W. GILLET, A. OWRE, and M. C. TRACY.

A lecture and conference course including an undergraduate thesis on the history of dentistry, dental ethics, dental economics, dental jurisprudence and other subjects.

Dentistry 285T—Oral therapeutics. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor J. SCHROFF.

Lectures and conferences on therapeutic agents used in dentistry.

ELECTIVES

For electives in Anatomy, Bacteriology, Biochemistry, Pathology, Pharmacology, Physiology, see *Announcement of the College of Physicians and Surgeons*.

Dentistry 211—Crown and bridge. Time and credit to be arranged. Professors A. T. ROWE, E. B. HOYT and W. H. CRAWFORD.

Further practice and advanced work may be arranged as desired with the approval of the head of the department.

Dentistry 216—Oral histology and embryology. Time and credit to be arranged. Professor C. F. BODECKER.

Special problems in advanced work may be arranged as desired with the approval of Professor Bodecker.

Dentistry 224—Oral hygiene. Time and credit to be arranged. Professor H. J. LEONARD.

Special problems in the fundamental sciences relating to oral hygiene and preventive dentistry may be arranged with the approval of Professor Leonard.

Dentistry 227—Dental metallography. Time and credit to be arranged. Mr. E. POLUSHKIN.

Special problems in metallurgy as related to dentistry may be arranged as desired with the approval of Mr. Polushkin.

Dentistry 239—Operative dentistry. Time and credit to be arranged. Professor L. L. HARTMAN.

Special problems and advanced work may be arranged as desired with the approval of Professor Hartman.

Dentistry 242—Orthodontia. Time and credit to be arranged. Professor L. M. WAUGH.

Advanced orthodontia technic and further clinical experience gained by assisting members of the clinical staff. Students who elect to take more than two credits will treat patients under direct supervision.

Dentistry 243—Facial art. Time and credit to be arranged. Mrs. K. W. KINGSBURY.

A study of the principles of art and esthetics as applied to dentistry. Lectures or laboratory or both combined.

Dentistry 247—Oral pathology. Time and credit to be arranged. Professor JOSEPH SCHROFF and Dr. L. CAHN and assistant.

Advanced work and special problems in oral pathology or oral bacteriology may be arranged as desired with the approval of Professor Schroff.

Dentistry 253—Periodontia. Time and credit to be arranged. Professors W. B. DUNNING, H. J. LEONARD and I. HIRSCHFELD.

Advanced work and special problems may be arranged as desired with the approval of the staff.

Dentistry 263—Prosthetic dentistry. Time and credit to be arranged. Professor A. T. ROWE.

Special problems and advanced work may be arranged as desired with the approval of Professor Rowe.

Dentistry 273—Oral surgery. Time and credit to be arranged. Professors H. S. DUNNING, D. PARKER, A. BERGER, and F. S. McCAFFERY.

Special problems and advanced work may be arranged as desired with the approval of the staff.

NEUROLOGY

Neurology 150—Neuro-anatomy. 2 hours of lecture and 6 hours of laboratory a week for one trimester. First year. 4 trimester credits. Professors O. S. STRONG, B. STOOKEY, and A. ELWYN.

Lectures and demonstrations on the gross anatomy, structure, and functions of the central nervous system. This course is equivalent to the Medical School course *Neurology 101*. The course for the year 1929-1930 will be somewhat shorter than in the future due to a temporary difficulty. It will consist of 3 hours lecture and demonstration a week for one trimester.

PATHOLOGY

Pathology 150FS—General and special pathology. 8 hours lecture and laboratory a week for one trimester and nineteen hours a week for the second. Second year. 13 trimester credits. Professors J. W. JOBLING and M. N. RICHTER and Dr. E. MOTT and assistants.

Lectures and laboratory.

This course is equivalent to the Medical School course *Pathology 101*, the two classes being taught together for lectures.

Pathology 151F—General and special pathology. 9 hours laboratory and 2 hours lecture a week for one trimester. Second year. 5 trimester credits. Professors J. W. JOBLING and M. N. RICHTER and Dr. E. MOTT and assistants.

Lectures and laboratory.

This course is an abbreviated one which will be given for the last time in the year 1929-1930. It will be given to the Junior class in the first trimester and to the two Sophomore classes in the second trimester.

PHARMACOLOGY

Pharmacology 150—General pharmacology. 9 hours a week for one trimester. 5 trimester credits. Second year. Professor C. C. LIEB and assistants.

Lectures and laboratory. In this course the pharmacological action of drugs on man and lower animals is studied. Short courses in pharmacy and prescription writing are included.

This course is equivalent to the Medical School course *Pharmacology 101S*, the two classes being taught together for lectures. Laboratory sections are separate.

Pharmacology 252—Pharmacology and therapeutics. 2 hours a week for one trimester. Fourth year. 2 trimester credits. Drs. W. R. BEAVEN and M. HUMBERT.

Lectures and conferences offered for the last time in 1929-1930 to students who have not had *Pharmacology 150*.

PHYSIOLOGY

Physiology 150—Mammalian physiology. 8 hours a week for one trimester and 9 hours a week for the second trimester. First year. 9 trimester credits. Professor H. B. WILLIAMS and assistants.

Lectures, conferences and laboratory. This course is equivalent to the Medical School course *Physiology 101*, the two classes being taught together for lectures.

PRACTICE OF MEDICINE

Practice of Medicine 250—General survey of medicine. 3 hours per week for three trimesters. 6 trimester credits. Fourth year. Professors WALTER W. PALMER and G. S. SHIBLEY and Dr. D. MOORE.

Lectures, conferences and clinics covering systematically the field of general medicine.

Practice of Medicine 251—Medico-dental clinic. A total of 30 hours of clinic in three trimesters. Fourth year. 1 trimester credit. Dr. D. MOORE.

Clinics in small groups in which the dental patients are studied for systematic relationships emphasizing medical history taking.

PSYCHIATRY

Psychiatry 150T—Psychopathology. 1 hour a week for one trimester. Second year. 1 trimester credit. Professors G. H. KIRBY and C. I. LAMBERT.

Lectures on the structural basis for mind; the instincts and emotions; development of the personality; social adjustment, failures in adjustment, compensatory reactions; types of abnormal behavior; emotional neurotic and personality factors in physical illness; functional disorders with special reference to dental practice. General principles of mental hygiene.

This course is the same as the Medical School course *Psychiatry 101*.

PUBLIC HEALTH

Public Health 250FST—Preventive medicine and public health administration. 1 hour a week for three trimesters. Fourth year. 3 trimester credits. Professor H. EMERSON and assistants.

This course is the same as the Medical School course, *Preventive Medicine and Public Health Administration 201FST*, the two classes being taught together.

REQUIRED TEXTBOOKS

The following list includes most of the books recommended. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York. These prices are liable to fluctuation. As a rule, the latest editions only of the textbooks should be purchased. Students are warned against buying any books until specifically advised by the departments concerned.

ANATOMY. Choice of Cunningham, *Anatomy*, \$10.00; Piersol, *Anatomy*, \$9.00.

BACTERIOLOGY. Choice of Park and Williams, *Pathogenic Micro-organisms*, \$6.50; Zinsser, *Text-book of Bacteriology*, \$7.50.

BIOCHEMISTRY. Choice of Mathews, *Physiological Chemistry*, \$6.00; Hawk, *Practical Physiological Chemistry*, \$6.50.

DENTISTRY

Anatomy, Oral. Diamond, *Dental Anatomy*. Price not yet determined.

Children's Dentistry. Mimeographed notes furnished by the department.

Crown and Bridge. Mimeographed notes furnished by the department.

Diagnosis, Oral. Mimeographed notes furnished by the department.

Histology, Oral. Bodecker, *Fundamentals of Dental Histology and Embryology*, \$3.50.

Hygiene, Oral. Fones, *Mouth Hygiene*, \$5.00. Mimeographed notes are also furnished by the department.

Metallurgy, Dental. Mimeographed notes furnished by the department.

Operative Dentistry. Black, *Operative Dentistry*, Vols. 1 and 2, \$12.00.

Orthodontia. Mimeographed notes furnished by the department.

Pathology, Oral. Choice of Bunting, *Oral Pathology*, \$7.00 or Moorehead and Dewey, *Pathology of the Mouth*, \$7.00.

Periodontia. Mimeographed notes furnished by the department.

Prosthetic Dentistry. Wilson, *Dental Prosthetics*, \$5.50.

Radiology, Oral. Mimeographed notes furnished by the department.

Surgery, Oral. Berger, *Principles and Technique of Oral Surgery*, \$7.00; Fischer and Reithmuller, *Local Anesthesia*, \$4.50.

Therapeutics, Oral. Mimeographed notes furnished by the department.

Histology and Neurology. Elwyn and Strong, *Laboratory Course in Histology*, \$2.50. Bailey, Strong and Elwyn, *Text Book of Histology*, \$7.00.

PATHOLOGY. Choice of McCallum, *Text Book of Pathology*, \$10.00; Karsner, *Human Pathology*, \$10.00 or Dalafeld and Prudden, *Text Book of Pathology* \$10.00.

PHARMACOLOGY. *Useful Drugs*, \$0.60, choice of Cushny, *Pharmacology and Therapeutics*, \$6.00; Dixon, *Manual of Pharmacology*, \$7.00; Sollmann, *Manual of Pharmacology*, \$7.50.

PHYSIOLOGY. Choice of MacLeod, *Physiology and Biochemistry in Modern Medicine*, \$11.00; Starling, *Human Physiology*, \$8.50; Howell, *A Text Book of Physiology*, \$6.50, Martin and Weymouth, *Elements of Physiology*, \$8.00.

PRACTICE OF MEDICINE. Choice of Cecil, *Text Book of Medicine*, \$9.00; Osler and McCrae, *Practice of Medicine*, \$7.50.

PSYCHIATRY. White, *Introduction to the Study of the Mind*, \$2.00.

DICTIONARY. Choice of Stedman, *Medical Dictionary*, \$7.00; Dorland, *Illustrated Medical Dictionary*, \$8.00; Gould, *The Student's Medical Dictionary*, \$2.00.

SCHEDULE OF CLASSES FOR THE YEAR 1929-1930

FRESHMAN SCHEDULE—FIRST TRIMESTER

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-12	Gross Anatomy	Gross Anatomy	Gross Anatomy	Gross Anatomy	Gross Anatomy	Gross Anatomy
11-2	Histology	Free	Histology	Histology		Free
2-5	Histology	Free	Histology	Histology	Histology	Free

SECOND TRIMESTER

9-12	Gross Anat. A Free B	Gross Anat. B Free A	Gross Anat. A Biochem. B	Gross Anat. B Biochem. A	Gross Anat. A Biochem. B	Gross Anat. B Biochem. A
12-1	Free	Physiology	Biochem.	Physiology		Biochem.
2-5	Gross Anatomy	Physiology	Gross Anatomy	Physiology	Gross Anatomy	Free

THIRD TRIMESTER

9-12	Oral Anat. A Biochem. B	Oral Anat. B Biochem. A	Neuro-Anat. A 10-12 Biochem. B	Neuro-Anat. B 10-12 Biochem. A	Free A Biochem. B	Free B Biochem. A
12-1	Physiology	Biochem.	Physiology	Physiology	Biochem.	Free
2-5	Neuro-Anat. 2-4	Physiology	Oral Anatomy	Physiology	Oral Anatomy	Free

SOPHOMORE SCHEDULE 1929-1930

FOR CLASS TAKING 43 WEEKS A YEAR

SUMMER SESSION

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Technic	Operative Dentistry	Technic	Radiology	Technic	Free
10-1	Technic	Technic	Technic	Technic	Technic	Free
2-5	Technic	Technic	Technic	Technic	Technic	Free

Technic time includes Prosthetic Technic full time 4 weeks, 5 trimester credits, Orthodontia Technic 1 week, 1 trimester credit, Operative Technic and Clinic 7 weeks, 8 trimester credits.

FIRST TRIMESTER

9-12	Physiol. Lect. 10:30-12	Physiology	Physiology	Physiology	Physiol. Lect. 10:30-12	Physiology
12-1	Bacteriology	Physiology	Bacteriology	Physiology	Bacteriology	Bacteriology
2-5	Bacteriology	Prophylaxis A Free B	Bacteriology	Prophylaxis B Free A	Bacteriology	Free

SECOND TRIMESTER

9-10	Crown and 9-12	Surgery	Surgery	Operative Dentistry	Prosthetic Technic	Oral Diagnosis
10-1	Bridge Technic	Prosthetic Technic	Clinic	Crown and Bridge Tec.	9-12	Clinic
2-5	Pathology 1-5	Prophylaxis A Clinic B	Pathology	Prophylaxis B Clinic A	Pathology 1-5	Free

Clinic time includes Operative Dentistry 2 trimester credits. Electives 1 trimester credit.

THIRD TRIMESTER

9-12	Crown and Bridge Tec.	Clinic	Clinic	Oral Surgery 9-10	Clinic	Prosthetic Lecture 9-10
12-1	Pharmacol.	Psycho-Path.	Pharmacol.	Crown and Bridge Tec. 10-1	Pharmacol.	Clinic 10-1
2-5	Pharmacol.	Prophylaxis A Clinic B	Clinic	Pharmacol.	Prophylaxis B Clinic A	Free

Clinic time includes Operative Dentistry 2 trimester credits, Prosthetic Dentistry 2 trimester credits, Electives 2 trimester credits.

SOPHOMORE SCHEDULE 1929-1930

FOR CLASS TAKING 31 WEEKS A YEAR

FIRST TRIMESTER

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-12	Physiology Lect. 10:30-12	Physiology	Physiology	Physiology	Physiology Lect. 10:30-12	Physiology
12-1	Bacteriology	Physiology	Bacteriology	Physiology	Bacteriology	Bacteriology
2-5	Bacteriology	Prophylaxis A Free B	Bacteriology	Prophylaxis B Free A	Bacteriology	Free

SECOND TRIMESTER

9-10	Crown and Bridge	Surgery	Surgery	Pharmacology	Prosthetic	Operative Dentistry
10-1	Technic 9-12	Elective	Operative Technic	Crown and Bridge Tec.	Technic 9-12	Operative Technic
2-5	Pathology 1-5	Prophylaxis A Oper. Tec. B	Pathology	Prophylaxis B Oper. Tec. A	Pathology 1-5	Free

THIRD TRIMESTER

9-12	Crown and Bridge Tec.	Prosthetic Technic	Elective	Oral Surgery 9-10	Prosthetic Technic	Radiology 9-10
12-1	Pharmacology	Psycho-Path.	Pharmacology	Crown and Bridge Tec. 10-1	Pharmacology	Operative Technic 10-1
2-5	Pharmacology	Prophylaxis A Oper. Tec. B	Elective	Pharmacology	Prophylaxis B Oper. Tec. A	Free

JUNIOR SCHEDULE 1929-1930—FIRST TRIMESTER

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Crown and Bridge	Oral Pathology	Elective	Crown and Bridge	Clinic	Oral Hygiene
10-1	Technic 9-12	Clinic	Clinic	Clinic	9-12	Clinic
2-5	Pathology 1-5	Clinic	Pathology	Clinic	Pathology 1-5	Free

The Clinic time includes Oral Surgery 1 trimester credit, Prosthetic Dentistry 1 trimester credit, Operative Dentistry 3 trimester credits, Electives 2 trimester credits.

SECOND TRIMESTER

9-10	Operative Dentistry	Orthodontia	Oral Surgery	Oral Hygiene	Oral Pathology	Crown and Bridge
10-1	Clinic	Orthodontia A Clinic B	Clinic	Orthodontia B Clinic A	Oral Pathology	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Clinic	Free

The Clinic time includes Crown and Bridge 1 trimester credit, Operative Dentistry 3 trimester credits, Periodontia 1 trimester credit, Prosthetic Dentistry 1 trimester credit, Electives 3 trimester credits.

THIRD TRIMESTER

9-10	Clinic 9-12	Orthodontia	Clinic 9-12	Oral Surgery	Clinic 9-12	Oral Pathology
10-1	Pharmacology 12-1	Orthodontia A Clinic B	Pharmacology 12-1	Orthodontia B Clinic A	Pharmacology 12-1	Oral Path.
2-5	Clinic	Pharmacology	Clinic	Clinic	Pharmacology	Free

The Clinic time includes Crown and Bridge 1 trimester credit, Operative Dentistry 3 trimester credits, Prosthetic Dentistry 1 trimester credit, Electives 2 trimester credits.

SENIOR SCHEDULE 1929-1930—FIRST TRIMESTER

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9-10	Practice of Medicine	Theory and Practice	Operative Dentistry	Practice of Medicine	Children's Dentistry	Public Health
10-1	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Clinic	Free

In terms of trimester credits the Clinic time includes Children's Dentistry 1, Crown and Bridge 2, Operative Dentistry 3, Prosthetic Dentistry 2, Electives 2, Practice of Medicine 1.

SECOND TRIMESTER

9-10	Practice of Medicine	Theory and Practice	Periodontia	Practice of Medicine	Pharmacology	Public Health
10-1	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Clinic	Free

Clinic time same as the First trimester.

THIRD TRIMESTER

9-10	Practice of Medicine	Theory and Practice	Prosthetic Dentistry	Practice of Medicine	Oral Therapeutics	Public Health
10-1	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic
2-5	Clinic	Clinic	Clinic	Clinic	Clinic	Free

Clinic time same as the First and Second trimesters.

ACADEMIC CALENDAR*

1929

- July 2 Tuesday. Registration in Summer Session begins.
July 6 Saturday. Last day for registration for students desiring full credit.
July 8 Monday. Thirtieth Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6, but half credit only will be granted. After July 16 no credit will be granted.
- August 1 Thursday. Last day for filing applications for the degrees of Master of Science, and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December.
Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 16 Friday. Thirtieth Summer Session ends.
- September 7 Saturday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 16 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES) FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- September 18 Wednesday, and September 19, Thursday. Placement examinations required of freshmen admitted to Columbia College.
- September 18 Wednesday, to October 5, Saturday. For University Extension students desiring credit.
- September 20 Friday, to September 25, Wednesday. For students in the School of Law, the School of Business (excepting graduate students), and Barnard College.
- September 21 Saturday, to September 25, Wednesday. For students in Education and Practical Arts, and the School of Journalism (excepting graduate students).
- September 23 Monday, to September 25, Wednesday. For students in Columbia College, Seth Low Junior College, the School of Engineering, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 23 Monday, to September 28, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business and Journalism.

*The medical and dental schools vary from this schedule as follows: The only holidays are on November 28 (Thanksgiving), December 22 to January 5 (inclusive) and April 13-20 (inclusive). Classes will be held on all other week days.

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September 25 Wednesday. Winter Session, 176th year begins.

September 26 Thursday. Classes begin.

September 28 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.

October 1 Tuesday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.

Last day for filing essays for the degree of Master of Science to be conferred in October.

October 5 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy and Pure Science.

October 12 Saturday. Last day for making changes in program for students in the Faculties of Political Science, Philosophy and Pure Science.

October 15 Tuesday. Stated meeting of University Council.

November 5 Tuesday. Election Day, holiday.

November 15 Friday. Last day for filing essays for the degree of Master of Arts to be conferred in December.

November 26 Tuesday. Annual Thanksgiving Service in St. Paul's Chapel.

November 28 Thursday, to November 30, Saturday, inclusive. Thanksgiving holidays.

December 2 Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.

December 16 Monday. Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken at mid-year. The privilege of later application may be granted on payment of a fee of \$6.

December 17 Tuesday. Stated meeting of University Council.

December 23 Monday, to

1930

January 5 Sunday, inclusive. Christmas holidays.

January 12 Sunday. Annual Commemoration Service in St. Paul's Chapel.

January 22 Wednesday. Mid-year examinations begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE SPRING SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

January 21 Tuesday, to January 27, Monday. For students in the School of Medicine.

January 30 Thursday, to February 15, Saturday. For University Extension students desiring credit.

February 1 Saturday, to February 4, Tuesday for all other students.

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- February** 1 Saturday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- February** 4 Tuesday. Winter Session ends.
Last day for filing essays for the degrees of Master of Arts and Master of Science to be conferred in February.
- February** 5 Wednesday. Spring Session begins. Classes begin.
- February** 8 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.
- February** 12 Wednesday. Alumni Day.
- February** 15 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy and Pure Science.
- February** 18 Tuesday. Stated meeting of University Council.
- February** 22 Saturday. Washington's Birthday, holiday.
Last day for making changes in program for students in the Faculties of Political Science, Philosophy and Pure Science.
- March** 1 Saturday. Last day for filing applications for University Fellowships and University Scholarships.
Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- March** 10 Monday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- April** 1 Tuesday. Last day for filing applications for examination for the degrees of Doctor of Philosophy and Doctor of Law to be conferred in June.
Last day for filing Cutting Fellowship applications.
- April** 15 Tuesday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- April** 15 Tuesday. Stated meeting of University Council.
Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken in May. The privilege of later application may be granted on payment of a fee of \$6.
- April** 17 Thursday, to April 21, Monday, inclusive. Easter holidays.
- May** 1 Thursday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
Last day for filing applications for scholarships in the Schools of Law, Applied Science, Architecture, and Columbia College.
- May** 19 Monday. Final examinations for all courses begin.
- May** 21 Wednesday. Last day for filing essays for the degrees of Master of Arts and Master of Science to be conferred in June.
- May** 30 Friday. Memorial Day, holiday.

COMMENCEMENT, JUNE 1 TO 4

- June** 1 Sunday. Baccalaureate Service.
- June** 2 Monday. Class Day.

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- June 3 Tuesday. Conferring of Degrees.
- July 7–August 15. Summer Session.
- July 7 Monday. Thirty-first Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6, but half credit only will be granted. After July 15 no credit will be granted.
- August 1 Friday. Last day for filing applications for the degrees of Master of Science, and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December.
Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 15 Friday. Thirty-first Summer Session ends.
- September 8 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 15 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- September 17 Wednesday, and September 18, Thursday. Placement examinations required of freshmen admitted to Columbia College.
- September 17 Wednesday, to October 4, Saturday. For University Extension students desiring credit.
- September 19 Friday, to September 24, Wednesday. For students in the School of Law, the School of Business (excepting graduate students), and Barnard College.
- September 20 Saturday to September 24, Wednesday. For students in Education and Practical Arts and the School of Journalism (excepting graduate students).
- September 22 Monday, to September 24, Wednesday. For Students in Columbia College, Seth Low Junior College, the Schools of Mines, Engineering and Chemistry, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 22 Monday, to September 27, Saturday. For Graduate students in Political Science, Philosophy, Pure Science, Business and Journalism.

September 24 Wednesday. Winter Session, 177th year begins.

September 25 Thursday. Classes begin.



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Columbia University

BULLETIN OF INFORMATION

Thirtieth Series No. 39

June 28, 1930

SCHOOL OF DENTAL AND ORAL SURGERY

1930-1931

Serial
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1930/31



630 WEST 168TH ST.
NEW YORK

Columbia University Bulletin of Information

Thirtieth Series, No. 39

June 28, 1930

Issued weekly at Columbia University, Morningside Heights, New York, N.Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, Directory Number, and the Announcements of the several Colleges and Schools and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P. 5,000—1930.

COMMUNICATIONS

All communications regarding the School of Dentistry, application for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 630 West 168th Street; telephone Billings 6000.



MEDICAL CENTER, VIEW FROM THE WEST

Columbia University

in the City of New York

SCHOOL OF DENTAL AND ORAL SURGERY

1930-1931



630 WEST 168TH ST.
NEW YORK

THE SCHOOL OF DENTISTRY

OFFICERS

NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.), Hon.D. (Paris)
President of the University

ALFRED OWRE *Dean and Professor of Dentistry*
D.M.D., 1894; A.B., 1910; M.D. and C.M., Hamline, 1895; Sc.D., Columbia, 1929.
Special Consultant (Dentistry), Presbyterian Hospital Staff; Member of the Dental Advisory Board. Department of Health, New York City.

LEUMAN MAURICE WAUGH. *Associate Dean and Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1922.
Consulting Orthodontist, New York Orthopedic Dispensary and Hospital; Member Dental Advisory Board, Department of Health, New York City.

FACULTY

ADOLPH BERGER *William Carr Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Attending Dental Surgeon Presbyterian Hospital; Oral Surgeon to Hospital for Joint Diseases.

CHARLES FRANCIS BODECKER *Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1925.

HANS THACHER CLARKE *Professor of Biological Chemistry*
D.Sc., London, 1914.
Consultant in Biological Chemistry, Presbyterian Hospital.

WILLIAM DARRACH *Dean Emeritus of the Faculty of Medicine*
A.B., Yale, 1897; A.M. (Hon.), 1920; A.M., Columbia, 1901; M.D., 1901; Sc.D., 1929.
Special Consultant (Surgery), Presbyterian Hospital; Consulting Surgeon, Sloane, Greenwich, and Beekman Street Hospitals.

SAMUEL RANDALL DETWILER *Professor of Anatomy*
Ph.B., Yale, 1914; A.M., 1916; Ph.D., 1918.
Consultant in Anatomy, Presbyterian Hospital.

HENRY SAGE DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York University, 1915; F.A.C.S., 1924.
Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; New York Hospital; Attending Oral Surgeon, Presbyterian Hospital; Fifth Avenue Hospital; Knickerbocker Hospital; Nassau Hospital; Broad Street Hospital; Vassar Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear, and Throat Hospital; St. Luke's Hospital; Roosevelt Hospital and St. Vincent's Hospital; Attending Oral Surgeon, Babies' Hospital; Attending Oral Surgeon, Sloane Hospital; Consulting Oral Surgeon, Post-Graduate Hospital.

WILLIAM BAILEY DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1895.
Attending Dental Surgeon, Presbyterian Hospital; Consulting Oral Pathologist, State Hospital; Psychiatric Institute, Ward's Island; Director of the Department of Dentistry, New York Orthopedic Dispensary and Hospital.

- FREDERICK PARKER GAY *Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901.
Commander of the Order of the Crown of Belgium; Bacteriologist, Presbyterian Hospital
- HENRY WEBSTER GILLET *Professor of Dentistry*
D.M.D., Harvard, 1885.
Member Dental Advisory Board, Department of Health, New York City.
- LEROY LEO HARTMAN *Professor of Dentistry*
D.D.S., Northwestern, 1913.
- ANNA VERONICA HUGHES *Professor of Dentistry and in Charge
of Courses in Oral Hygiene*
D.M.D., Tufts, 1909.
Attending Dental Surgeon, Presbyterian Hospital; Member Dental Advisory Board, Department of Health, New York City.
- JAMES WESLEY JOBLING *Professor of Pathology*
M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- HAROLD JUDSON LEONARD *Professor of Dentistry*
D.D.S., Minnesota, 1912; A.B., 1915.
Secretary of the Faculty; Attending Dental Surgeon, Presbyterian Hospital.
- CHARLES CHRISTIAN LIEB *Hosack Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
Consultant, Pharmacology, Presbyterian Hospital.
- ARTHUR TAYLOR ROWE *Professor of Dentistry*
D.D.S., Minnesota, 1906.
Attending Dental Surgeon, Presbyterian Hospital.
- WILLIAM DWIGHT TRACY *Professor of Dentistry*
D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- HORATIO BURT WILLIAMS *Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905; Sc.D., 1925.
Consultant, Physiology, Presbyterian Hospital.

OTHER OFFICERS OF INSTRUCTION

- JAMES CHRISTIE ALLAN *Instructor in Dentistry*
D.D.S., Royal College of Dental Surgeons, 1913.
- BERT GEORGE ANDERSON *Associate Professor of Dentistry*
D.D.S., Minnesota, 1913.
- EDMUND APPLEBAUM *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1922.
- HENRY ULYSSES BARBER, JR. *Instructor in Dentistry*
D.D.S., Pennsylvania, 1916.
- HENRY ARTHUR BARTELS *Instructor in Dentistry*
B.S., Rhode Island State, 1917; B.S., Columbia, 1925; D.D.S., 1927.

- WALTER REGINALD BEAVEN *Instructor in Pharmacology*
D.D.S., Columbia, 1926.
- SAMUEL BIRENBACH *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1917.
- MAURICE BUCHBINDER *Assistant Professor of Dentistry*
B.S., College of the City of New York, 1917; D.D.S., Columbia, 1925.
- LESTER RICHARD CAHN *Assistant Professor of Dentistry*
D.D.S., New York College of Dentistry, 1917.
- RUSSELL LEGRAND CARPENTER *Instructor in Anatomy*
B.S., Tufts, 1924; Ph.D., Harvard, 1928.
- C. STERLING CONOVER *Instructor in Dentistry*
D.D.S., Pennsylvania, 1918.
- WILLIAM HOPKINS CRAWFORD *Associate Professor of Dentistry*
D.D.S., Minnesota, 1923.
- BROR ERIC DAHLGREN *Associate Professor of Dentistry*
D.M.D., Minnesota, 1901.
- MOSES DIAMOND *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1914.
- ADOLPH ELWYN *Assistant Professor of Neurology*
B.S., Columbia, 1915; A.M., 1917.
- HAVEN EMERSON *Professor of Public Health Administration*
A.B., Harvard, 1896; A.M., Columbia, 1899; M.D., 1899.
- JOSEPH OCTAVIUS FOURNIER *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1913.
- BERN BUDD GALLAUDET *Associate Professor of Anatomy*
A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
Consulting Surgeon, Bellevue Hospital.
- FREDERIC GROSVENOR GOODRIDGE *Associate in Biological Chemistry*
A.B., Harvard, 1897; M.D., Columbia, 1901; Ph.D., 1915.
- LEO JOSEPH HAHN *Instructor in Physiology*
Ph.D., Yale, 1914; M.D., 1918.
- ISADOR HIRSCHFELD *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1902.
Attending Dental Surgeon, Presbyterian Hospital; Associate Oral and Dental Surgeon, New York Hospital for Joint Diseases; Chief, Periodontia Department, Beth Israel Hospital.
- HOUGHTON HOLLIDAY *Assistant Professor of Dentistry*
A.B., Minnesota, 1915; D.D.S., 1917. *and Superintendent of Dental Clinics*

- KATHERINE FLORENCE HOLLIS *Instructor in Dentistry*
D.H., Columbia, 1921.
- ALEITA HOPPING *Assistant Professor of Physiology*
A.B., Hunter, 1912; Ph.D., Columbia, 1923.
- FREDERICK HOLLIS HOWARD *Assistant Professor of Physiology*
M.D., Pennsylvania, 1898; A.B., Williams, 1926.
- EARL BANKS HOYT *Assistant Professor of Dentistry*
D.D.S., Pennsylvania, 1918.
- MARY CAROLINE HRUBETZ. *Instructor in Physiology and Pharmacology*
A.B., California, 1920; A.M., Columbia, 1928.
- MELVILLE HUMBERT *Instructor in Pharmacology and Oral Surgery*
A.B., Columbia, 1923; B.S., 1924; D.D.S., 1926.
- DONALD HUTCHINSON *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1922.
- HAROLD THOMAS HYMAN *Assistant Professor of Pharmacology*
A.B., Columbia, 1915; M.D., 1917.
- MAXWELL KARSHAN *Assistant Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; A.M., Columbia, 1920; Ph.D., 1925.
- GEORGE HUGHES KIRBY *Professor of Psychiatry*
B.S., North Carolina, 1896; M.D., Long Island College Hospital, 1899.
Director, New York State Psychiatric Institute and Hospital; Consulting Psychiatrist, U.S. Veteran's Hospital No. 81 and Children's Hospital.
- FRED HENRY KUVER *Instructor in Dentistry*
D.D.S., Columbia, 1926.
- CHARLES I. LAMBERT . . . *Professor of Psychiatric Education in Teachers College*
B.S., Iowa, 1901; A.M., 1903; M.D., 1903.
Chief of Clinic, Psychiatry, Vanderbilt Clinic; Assistant Consultant, Presbyterian Hospital.
- JESSICA PENDLETON LELAND *Assistant in Biological Chemistry*
B.S., Simmons, 1919; A.M., Columbia, 1928.
- GEORGE FRANK LINDIG *Instructor in Dentistry*
D.D.S., Minnesota, 1924.
- RICHARD WAGNER LINTON *Assistant Professor of Bacteriology*
A.B., Harvard, 1922; A.M., Columbia, 1926; Ph.D., 1929.
- JOSEPHINE EMILY LUHAN *Assistant Professor of Dentistry*
D.D.S., New York College of Dental and Oral Surgery, 1912.
- EWING CLEVELAND McBEATH *Associate Professor of Dentistry*
D.D.S., Minnesota, 1910; B.M., 1920; M.D., 1921.

- FRANCIS STEPHEN McCAFFREY *Assistant Professor of Dentistry*
 B.S., Fordham, 1911; D.D.S., New York College of Dentistry, 1915.
 Visiting Oral Surgeon, St. Vincent's Hospital; Visiting Dental Surgeon, Fordham Hospital;
 Attending Dental Surgeon, Presbyterian Hospital; Junior Oral Surgeon, Manhattan Eye,
 Ear, and Throat Hospital; Assistant Attending Oral Surgeon, Vanderbilt Clinic; Consulting
 Oral Surgeon, Manhattan Hospital.
- EDGAR GRIM MILLER, JR. *Associate Professor of Biological Chemistry*
 B.S., Gettysburg, 1911; Ph.D., Columbia, 1913.
- DAVID DODGE MOORE *Assistant in Medicine*
 A.B., Princeton, 1921; M.D., Columbia 1925.
- HARRY MOSS *Instructor in Dentistry*
 D.D.S., New York College of Dentistry, 1911.
- ETHEL MOTT MORGAN *Instructor in Pathology*
 B.S., Columbia, 1918; M.D., 1928.
 Assistant Resident Pathologist, Presbyterian Hospital.
- EDWARD GERALD MURPHY. *Instructor in Dentistry*
 D.D.S., Michigan, 1924; P.G. Pennsylvania, 1925.
- EDWIN J. NESTLER *Assistant Professor of Dentistry*
 D.D.S., Pennsylvania, 1911.
- WALTER WALKER PALMER *Bard Professor of the Practice of Medicine*
 B.S., Amherst, 1905; Sc.D., 1922; M.D., Harvard, 1910; Sc.D., Columbia, 1929.
 Director of Medical Service, Presbyterian Hospital; Consulting Physician, Sloane Hospital.
- DOUGLAS BURNETT PARKER *Associate Professor of Dentistry*
 M.D., Long Island College Hospital Medical School, 1912; D.D.S., Pennsylvania, 1914.
 Assistant Attending Oral Surgeon, Presbyterian Hospital; Instructor in Surgery, College of
 Physicians and Surgeons; Associate Surgeon, Long Island College Hospital; Instructor in
 Surgery, Medical School, Long Island College Hospital; Consultant in Oral Surgery, Swedish
 Hospital, Vassar Hospital.
- FRANK ELMER RIANs *Instructor in Dentistry*
 D.D.S., Buffalo, 1905.
- MAURICE NATHANIEL RICHTER *Assistant Professor of Pathology*
 B.S., Columbia, 1919; M.D., 1921.
 Assistant Visiting Pathologist, Presbyterian Hospital.
- ERNEST LYMAN SCOTT. *Associate Professor of Physiology*
 B.S., Ohio Wesleyan, 1902; M.S., Chicago, 1911; Ph.D., Columbia, 1914.
- JOSEPH SCHROFF *Associate Professor of Dentistry*
 B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
 Attending Dental Surgeon, Presbyterian Hospital; Oral Surgeon, O.P.D., Mt. Sinai Hospital.
- AURA EDWARD SEVERINGHAUS *Assistant Professor of Anatomy*
 B.S., Columbia, 1916; A.M., 1920; Ph.D., 1929.
- HAROLD SKELTON. *Instructor in Physiology*
 A.B., Nebraska, 1923; M.Sc., Minnesota, 1925.

- GILBERT PERCIVAL SMITH *Instructor in Dentistry*
D.D.S., Minnesota, 1927.
- BYRON P. STOOKEY *Assistant Professor of Neurology and Neurosurgery*
A.B., Southern California, 1908; A.M., Harvard, 1909; M.D., 1913.
Associate Surgeon, New York Neurological Institute; Associate Professor Neurosurgery,
New York Post-Graduate Medical School and Hospital; Assistant Visiting Surgeon,
Bellevue; Assistant Surgeon in charge of Neurological Surgery, City Hospital; Assistant
Attending Neurological Surgeon, Memorial Hospital; Consulting Neurological Surgeon,
Vanderbilt Clinic, Beekman Street Hospital, Willard Parker Hospital and Associate
Consulting Neurological Surgeon, St. Luke's Hospital.
- OLIVER SMITH STRONG *Professor of Neurology and Neurohistology*
A.B., Princeton, 1886; A.M., Columbia, 1892; Ph.D., 1896.
Consultant (Neuropathology), Department of Neurology, Vanderbilt Clinic.
- MARTIN CHARLES TRACY *Assistant Professor of Dentistry*
D.M.D., Tufts, 1900.
Attending Dental Surgeon, Presbyterian Hospital.
- KAUFMAN WALLACH *Instructor in Physiology*
A.B., Cornell, 1914; M.D., 1917.
- GENEVA HASTINGS WALLS *Instructor in Dentistry*
D.H., Forsyth Dental Infirmary, 1917.
- CORA SENNER WINKIN *Instructor in Physiology*
Ph.D., Columbia, 1922.
- MORRIS A. ZIMMER *Instructor in Dentistry*
D.D.S., New York University, 1918.

CLINICAL STAFF

- | | |
|------------------------------|------------------------------------|
| HOWARD D. APPLGATE, D.D.S. | DONALD J. McLAUGHLIN, D.D.S. |
| WILLIAM W. BAADÉ, D.D.S. | JOSEPH L. MCSWEENEY, A.B., D.D.S. |
| GEORGE S. CALLAWAY, D.D.S. | T. MAVRO, D.D.S., M.D. |
| RAMON R. CARLSTON, D.D.S. | ROBERT W. NORTHROP, D.D.S. |
| KENNETH F. CHASE | ARMAND M. OPPENHEIMER, D.D.S. |
| W. M. CLARK, D.D.S. | CARL SCHOOFF, D.D.S. |
| ROSE COHEN, D.D.S. | ALBIN R. SEIDEL, D.M.D. |
| ARTHUR O. COVEN, D.D.S. | L. C. SKIFF, D.D.S. |
| CHARLES B. FOWLKES, D.D.S. | M. RUSSELL STEIN, D.D.S. |
| SAMUEL GATTEGNO, D.D.S. | FERDINAND A. STEWART, A.B., D.D.S. |
| JACOB GROSSMAN, B.S., D.D.S. | LEWIS R. STOWE, D.D.S. |
| IRVIN L. HUNT, JR., D.D.S. | ARTHUR C. TOTTEN, D.D.S. |
| REUBEN LENZER, D.D.S. | PAUL B. WIBERG, D.D.S. |
| MORELL D. MCKENZIE, D.D.S. | HARRY A. YOUNG, D.D.S. |

PHOTOGRAPHER

KATHARINE W. KINGSBURY, A.B.

PRESBYTERIAN HOSPITAL DENTAL SERVICE

Director, WILLIAM D. TRACY, D.D.S.

Special Consultant

ALFRED OWRE, A.B., D.M.D., M.D.

Assistant Attending Oral Surgeon

DOUGLAS PARKER, M.D., D.D.S.

Attending Dental Surgeons

ADOLPH BERGER, D.D.S.

WILLIAM B. DUNNING, D.D.S.

ISADOR HIRSCHFELD, D.D.S.

ANNA V. HUGHES, D.M.D.

HAROLD J. LEONARD, D.D.S., A.B.

FRANCIS S. McCAFFREY, B.S., D.D.S.

JOSEPH SCHROFF, D.D.S., M.D.

MARTIN C. TRACY, D.M.D.

Assistant Attending Dental Surgeon

ALBIN R. SEIDEL, D.M.D.

Assistant Dental Surgeons

HOWARD T. APPLGATE, D.D.S.

WILLIAM W. BOADE, D.D.S.

HOUGHTON HOLLIDAY, D.D.S.

ROSE COHEN, D.D.S.

REUBEN LENZER, D.D.S.

WILLIAM MURRAY, D.D.S.

Attending Oral Surgeon

HENRY S. DUNNING, M.D., D.D.S.

Dental Internes

ELMER E. MACKINNON

WILLIAM MALARICK

COMMITTEES

Dental Faculty Section on Graduate Studies in Medicine

Dean OWRE (*Chairman*), Professors BODECKER and WAUGH

Curriculum and Syllabus

Professor LEONARD (*Chairman*), Professors BERGER, BODECKER, HARTMAN, KARSHAN, LIEB, RICHTER, ROWE, and WILLIAMS

Instrument

Professor ROWE (*Chairman*), Professors HARTMAN, HIRSCHFELD, and HUGHES

Museum

Professor GILLET (*Chairman*), Professors DIAMOND, H. S. DUNNING, and JOBLING

Library Committee

Professor LEONARD, Dental School Representative

Research Committee

Professor BODECKER (*Chairman*), Professors BERGER, CAHN, and DIAMOND

Freshman Class—Faculty

Professor CRAWFORD (*Chairman*), Professors BUCHBINDER, DETWILER, DIAMOND, GALLAUDET, and KARSHAN

Sophomore Class—Faculty

Professor BODECKER (*Chairman*), Professors BUCHBINDER, CRAWFORD, HUGHES, LINTON, and WILLIAMS

Junior Class—Faculty

Professor LEONARD (*Chairman*), Professors BERGER, HARTMAN, HOYT, HUMBERT,
and Dr. HYMAN

Senior Class—Faculty

Professor ROWE (*Chairman*), Professors H. S. DUNNING, HARTMAN and SCHROFF

Committee on Student Affairs

Professor ROWE (*Chairman*), Professors BODECKER, CRAWFORD, HARTMAN,
HOLLIDAY and LEONARD

THE COMMONWEALTH FUND GRANT FOR THE STUDY OF THE CAUSE OF
DENTAL CARIES

Advisory Board

Dr. B. G. ANDERSON
Dr. HENRY BODECKER
Dr. LESTER R. CAHN
Dr. HANS T. CLARKE
Dr. B. E. DAHLGREN
Dr. WALTER H. EDDY
Dr. FREDERICK P. GAY
Dr. HAROLD J. LEONARD

Dr. E. C. McBEATH
Dean ALFRED OWRE
Dr. A. M. PAPPENHEIMER (in the
absence of Dr. JOBLING)
Dr. HENRY C. SHERMAN
Dr. HORATIO B. WILLIAMS
Dr. CHARLES F. BODECKER, *Chairman*

The Dean is a member *ex officio* of all committees

UNIVERSITY OFFICERS OF ADMINISTRATION

FRANK D. FACKENTHAL, LL.D., Litt.D. *Secretary of the University*
ADAM LEROY JONES, Ph.D., Litt.D. *Director of University Admissions*
CHARLES C. WILLIAMSON, Ph.D., Litt.D. *Director of University Libraries*
ROGER HOWSON, A.M. *Librarian*
EDWARD J. GRANT, A.B. *Registrar of the University*
CHARLES S. DANIELSON *Bursar of the University*
HENRY LEE NORRIS, M.E. *Director of Works*
DAVID M. UPDIKE, M.E. *Superintendent of Buildings and Grounds*
REV. RAYMOND C. KNOX, S.T.D. *Chaplain of the University*
EDWARD S. ELLIOTT, M.D. *Medical Director of the Gymnasium*
WILLIAM H. McCASTLINE, M.D. *University Medical Officer*
HERBERT B. HOWE, A.M. *Director of Earl Hall*
NICHOLAS McD. McKNIGHT, A.B. *Secretary of Appointments*
CLARENCE E. LOVEJOY, A.B. *Alumni Secretary*

SCHOOL OF DENTAL AND ORAL SURGERY OFFICERS OF ADMINISTRATION

FREDERICK MILLER, C.E. *Assistant Superintendent of Buildings and Grounds*
CHARLES M. FORD, M.D. *Assistant to the Registrar*

SCHOOL OF DENTAL AND ORAL SURGERY

GENERAL INFORMATION

HISTORICAL STATEMENT

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the School became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large buildings, at 302-306 East 35th Street, and 309-315 East 34th Street in which the school was housed up to the time of moving into the Medical Center.

In September, 1928, the School was moved to the Columbia University-Presbyterian Hospital Medical Center where it occupies the three upper floors of the Vanderbilt Clinic wing, giving a net floor area of 40,000 square feet. The College of Physicians and Surgeons in which the fundamental medical science subjects are given adjoins it, the halls of the two being continuous. In adjacent wings the halls of which are continuous with those of the School, the wards and out-patient departments of the Presbyterian and associated hospitals are located, thus giving the closest possible contact and association with all branches of health service. The Dental School Clinic includes as one of its functions the dental care of the patients of the Medical Center hospitals.

It is the purpose of the Faculty to maintain dental education in this school on the same footing as that of other branches of health service. Two years of college work including certain specified subjects are required for admission and of those who have fulfilled the requirements a careful selection is made on the basis of their fitness for the practice of dentistry. The course of dentistry covers four years leading to the degree of Doctor of Dental Surgery. The first two years of the curriculum are taken in the fundamental departments of the College of Physicians and Surgeons. The science courses of these two years are designed to meet the state requirements of the first two years of the medical curriculum. Standards of scholarship are intended to be the same throughout.

STUDENTS

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid.

No student registered in any school or college of the University may at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

GRADUATION

Diplomas are issued only at Commencement and in February and October, (for A.M. candidates at Commencement and in February and December, or, in the case of the Ph.D. degree, upon the completion of the requirements).

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years will be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean or Director of the school or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

Letters requesting more detailed information than is contained in this Announcement, and all correspondence regarding admission, should be addressed to the Dean, School of Dental and Oral Surgery, 630 West 168th Street.

LIBRARY

A combined medical dental library with spacious reading room containing approximately 50,000 volumes and about the same number of pamphlets occupies a part of three lower stories of the main administration building of the Medical Center and is open to students from 9 a. m. to 10 p. m., on week days.

This library has been formed through the consolidation of departmental libraries to serve more adequately the needs of students, internes and teachers of the combined schools and Presbyterian Hospital Unit. It has a seating capacity for 250 readers.

The periodical room on the upper floor is especially equipped to foster and encourage research work. Here are received 300 current journals, and nearby will be shelved the bound volumes of the most important journals covering a period of approximately ten years. In addition, the more important reference works, the systems of medicine and surgery, some of the German *Handbücher* and other bibliographical tools will be available for intensive research work.

The book collections are systematically arranged under the Library of Congress classification, and the serials shelved in a strictly alphabetical order, so as to insure quick service and prompt delivery over the loan desk.

The dictionary catalogue in the lobby, with its author, subject and title entries should be freely consulted as a guide and index to the subject matter in the combined collections of the library.

UNIVERSITY PRIVILEGES

As the School of Dental and Oral Surgery is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of other departments of the University. They may reside in the University dormitories at Morningside Heights, and are eligible to membership in the various social and other organizations of the student body.

University Libraries. The libraries on Morningside Heights are open to all students of dentistry, and books may be borrowed for home use. They include collections on anatomy, biochemistry, public health, nursing, and other subjects related to dentistry, and supplement the special collections available in the College of Physicians and Surgeons, and in the New York Academy of Medicine, Fifth Avenue at 103d Street. The library of the College of Pharmacy, 115 West 68th Street, is also open to students in the School of Dentistry.

University Gymnasium. The Gymnasium is situated on Morningside Heights, and is open daily during the academic year, except on Sundays and legal holidays, from 8:30 a. m. to 7 p. m. (Saturdays, 5 p. m.). It is closed for the entire day only on Thanksgiving, Christmas, New Year's, and Good Friday; on all other holidays it is open from 2 to 6 p. m. Instructors are on the floor at all times when the Gymnasium is open. Students of the School of Dentistry may enjoy its privileges and have the use of the Gymnasium and baths and a private locker.

The student is entitled also to a physical examination by the University Medical Officer, who, on the basis of such an examination, will give advice as to the kind and amount of exercise best adapted to the needs of each man. The Gymnasium is large, thoroughly equipped, and under the immediate supervision of the University Medical Officer, a professor in the Department of Physical Education. The Medical Officer is assisted by a corps of able instructors.

Employment. The Appointments Office located in Earl Hall is the central placement department of the University through which students and graduates are referred to suitable positions.

It is the function of the Appointments Office to secure for competent men and women students who need to work their way through the University, the opportunity to earn enough for their partial support. It is the experience of the office, however, that it is practically impossible for dental students to undertake outside part-time work during the academic year without seriously jeopardizing their school work and their health. The office consequently does not encourage students of the School of Dental and Oral Surgery to seek employment during the academic year, although it assists competent men and women to secure suitable and remunerative work during the summer. In general the office advises students who are unable to pay the complete cost of attending the School, to withdraw for a year in order to earn the money necessary to enable them to give undivided attention to their academic work.

MEDICAL ATTENDANCE

The University Medical Officer, Dr. W. H. McCASTLINE, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, should be reported to him promptly. The Medical Officer and the members of his staff hold office hours daily in Earl Hall for the medical care of students and members of the staff.

RESIDENCE HALLS

There are four Residence Halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls for both men and women are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Intercollegiate Cosmopolitan Club, is maintained for men and women students from foreign

lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Fees for the academic year range from \$185 to \$325. Inquiries should be addressed to Committee on Admissions, International House, 500 Riverside Drive.

THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and grillroom for men students in John Jay Hall. In addition the University maintains the following dining rooms (cafeteria service): The Commons (men and women), University Hall; Barnard Hall Lunch Room (women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is available for student receptions and dances. The lower floor, entrance from Broadway, is occupied by the office of the University Medical Officer.

UNIVERSITY BOOKSTORE

The official University Bookstore is situated in the Journalism building, with entrances at 2960 Broadway (southeast corner, 116th Street and Broadway) and from South Field (between Furnald Hall and Journalism). The store occupies two floors. Books are sold on the main, and all other supplies on the lower floor at discounts from list prices. The store is open every day from 8:30 a. m. to 8 p. m.; during the first week of each session, until 10 p. m., Saturdays included. The store maintains a haberdashery, a theater and concert ticket service, a travel bureau, and various other services with substantial savings to Columbia students.

REQUIREMENTS FOR ADMISSION

ADMISSION TO FIRST YEAR OF THE SCHOOL OF DENTAL AND ORAL SURGERY

Eligibility. No definite information regarding eligibility can be given until the completed application blank has been filed by the applicant at the Office of the Dean.

Application. It is desirable that candidates make application before June 1, as on or about June 15 the Committee on Admissions will act upon all applications received up to that date. Application blanks will be furnished by the Dean's Office of the School of Dental and Oral Surgery.

The minimum requirements which will be accepted for admission are attendance for two full years of at least seven months each at an acceptable college of arts and sciences, comprising 72 points as rated by Columbia College. The courses taken at college must include the following:

1 year physics, aggregating 8 semester hours or more, or one year aggregating 6 semester hours (including laboratory work) based on college entrance physics.

1 year inorganic chemistry, based on college entrance chemistry, the equivalent of 6 to 10 semester hours.

$\frac{1}{2}$ year qualitative or quantitative analysis, not less than 4 semester hours.

$\frac{1}{2}$ year organic chemistry, not less than 4 semester hours.

1 year biology, aggregating 6 semester hours or more.

2 years English, approximately 10 semester hours total.

2 years French or 2 years German. This requirement comprises one year of advanced French or German which has been preceded either by a two years' study of the same language in high school, or by one year's study of the same language in college. It aggregates 12 to 14 semester hours of either French or German. No other language can be substituted.

Aside from filling the predental requirement, cultural rather than purely scientific courses are recommended to be taken.

Shop practice and technical drawing are earnestly recommended to predental students as two of their elective subjects. These subjects give early training in muscle and eye coördination so necessary in dentistry and so difficult to attain in later years.

Note: A point or semester hour is the equivalent of one hour of lecture or recitation or of two hours of laboratory work per week, per semester. Suitable laboratory work must be included in each of the courses in science.

The following credentials must be submitted or mailed to the Dean's office, School of Dental and Oral Surgery.

1. Application for admission (blank furnished by this school on request). Transcript of courses taken, or to be taken, must be entered on this blank.

2. An official transcript of college record, showing entrance credits, courses taken and grades received. This is not required until the courses offered for admission are completed, unless specific request for it is previously made.

3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must show only head and neck.)

The following must be mailed to New York State Department of Education, Albany, New York.

1. An application for qualifying certificate (blank furnished by the School or New York State Department of Education, Albany, New York). This is required by the New York State Department of Education and is forwarded to them with the one dollar fee in requesting issuance of Dental Student Qualifying Certificate for the applicant.

2. Official transcripts of high school records must be furnished *only* in case the college record *fails* to show the college entrance credits.

3. In addition to the above credentials the applicant must furnish a fee of one dollar (check or money order drawn to order of the University of the State of New York, and forwarded with application for qualifying certificate) covering cost of issuance of a Dental Student Qualifying Certificate.

No letters of recommendation are desired unless asked for.

A Dental Student Qualifying Certificate, which is the official evidence of the fulfillment of the requirements of the state, must be authorized before the student begins the first annual dental course counting towards a dental degree. This precludes the admission of the conditioned students.

Owing to the limited number of students who can be accommodated, completion of the requirements for entrance does not guarantee admission. The entire pre-dental record of each student is carefully examined by the Committee on Admissions in order that those who are adjudged most capable of meeting the exacting demands of the course and of the profession of dentistry may be selected.

In order to make the best selection from among the candidates who are eligible for admission all applicants who are eligible will be requested to report at the Dean's office for a personal interview some time prior to the final action of the Committee on Admissions. Those who remain on the eligible list after a personal interview will be given an examination as to mechanical ability and manual dexterity. This test will be given at various times during the year. It will consist of exercises in mechanical and free hand drawing, metal filing, and moulding in plastic material, and will be conducted by the technic teachers in the School.

Fee on Admission: A fee of \$10 is payable by the applicant within ten days of his receipt of notice that he has been accepted for admission. A check to the order of Columbia University should be returned by the accepted applicant with notice that he intends to matriculate. If the applicant registers within the prescribed registration dates in September, this fee will be credited as the University fee. If he fails to register the fee lapses and will be used by the University to meet the cost of its administrative and overhead charges in caring for applicants who do not finally register.

Admission of Foreign Students. The credentials submitted must contain evidence of the satisfactory completion of the equivalent to the stated entrance requirements.

All applicants for a Dental Student Qualifying Certificate on credentials from foreign countries (other than those in which English is the language of the people) must pass a special examination in English. This examination is conducted

by the State Department of Education. Information regarding this and the dates on which it is given can be obtained from the Commissioner of Education, Albany, New York.

Evidence of authenticity and the right of possession as well as the original credentials and authenticated translation of the same are required by the State Department of Education and by this office.

If applicant resides in a foreign country, the credentials as outlined below should be prepared and submitted to the Dean's office, 630 West 168th Street, New York City.

If applicant resides in the United States, the credentials should be sent direct to the New York State Department, Albany, N. Y., for the attention of Mr. H. L. Field, and only one copy of affidavit on "Form F" is required.

1. Original credentials from foreign schools.
2. Translations of credentials certified to be correct by a consul or notary public.
3. Affidavit fully describing the applicant's education made out (in duplicate) on blank known as "Form F."

In addition to above credentials the applicant must furnish a fee of one dollar by check or money order drawn to order of University of the State of New York and sent with application for qualifying certificate, covering cost of issuance of a Dental Student Qualifying Certificate.

The following credentials must be submitted at the Dean's Office, 630 West 168th Street, after a Dental Student Qualifying Certificate has been authorized.

1. Application for Admission (blank furnished by this school on request).
2. Letter from the New York State Department of Education to the applicant certifying eligibility for Dental Student Qualifying Certificate.
3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must be head and neck only.)

Applicants may be required to submit to examination at the pleasure of the Faculty.

Admission of Foreign Students to Advanced Standing. Foreign students applying for admission to advanced standing must comply with the above requirements, and must, in addition to the above noted credentials, submit transcripts and translations of their dental school work, and a letter from the New York State Department of Education certifying eligibility for admission to advanced standing. They will also be required to submit to examination at the pleasure of the Faculty.

COMBINED COURSES

Combined Courses with Columbia College. Upon receiving 94 points credit, 64 of which must be for work in Columbia College, including all of the work prescribed for the degree in Columbia College, a student may take studies in the first year of the School of Dental and Oral Surgery, provided he can satisfy the stated requirements and is accepted for admission therein, and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work.

No course may be counted toward a professional degree and at the same time be included among those which go to make up the 94 points referred to above.

Combined Course in Dentistry and Medicine. Under the new curriculum the first two years of dentistry include courses in anatomy, physiology, chemistry, bacteriology, pathology, and pharmacology which comply with the special requirements of the first two years of the medical curriculum as outlined by the New York State Department of Education. Students desiring to complete the medical curriculum may be admitted to the third year of medical colleges under the usual conditions of transfer and selection which obtain in each college. These courses are not, however, entirely equivalent to those required in the first two years of the College of Physicians and Surgeons of Columbia University, and students desiring to transfer to this medical school are not automatically granted advanced standing for the full two years, but must submit to examination by the departments of the third year teaching and can be admitted only as there are vacancies in the class.

Admission to Advanced Standing. Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their school of previous residence. Provided they are eligible for the Dental Student Qualifying Certificate required by the New York State Department of Education and can submit evidence of the satisfactory completion of the entrance requirements of this school, candidates who have completed, without condition, one or two years of study in a dental school registered in the state of New York including courses equivalent to those given at this school are eligible to apply for admission to the second or third years respectively.

Owing to the lack of uniformity in the arrangement of the first and second year curricula in the various dental schools a transfer can usually be accomplished with the least adjustment at the end of the second year.

The following credentials must be submitted at the Dean's office, 630 West 168th Street:

1. Application for admission (blank provided by this school on request) completely filled out.
2. Official transcript of college record including college entrance credits should be sent in with application blank.
3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must be head and neck only.)
4. A properly executed oath of allegiance and application for Qualifying Certificate (blank provided by this school on request).
5. Official transcript of dental school record must be submitted *on completion* of courses taken.
6. A properly executed advanced standing blank, required by the state of New York (blank furnished by this school) must be executed by proper official of dental school of previous residence *on completion* of college years certified.
7. In addition to above credentials applicant must furnish a fee of one dollar, check or money order drawn to order of University of the State of New York, covering cost of issuance of the Dental Student Qualifying Certificate.

Admission to the fourth year is by special permission of the Committee on Administration and is limited to students who have the predental qualifications

and have the degree of Doctor of Dental Surgery from an acceptable dental school. Applicants for admission to the fourth year must furnish these credentials in addition to the others required for advanced standing.

ADMISSION OF SPECIAL STUDENTS

Students who desire to pursue a special course without graduation may matriculate as special students, but only after approval by the head of the department conducting the course and by the Dean. Such special work will not count in any way as part of the course required of candidates for the degree of Doctor of Dental Surgery.

SUMMER SESSION

In 1930, from June 4 to August 26, a Summer Session of twelve weeks will be offered as an optional course to the class which entered the School in the fall of 1929, and as a continuation of the regular course of the group who attended a similar course in the summer of 1929. The New York State Department of Education has approved the curriculum, which is arranged so that students attending the Summer Sessions can graduate after completing three school years of forty-four weeks each, as an alternative to the four years of thirty-two weeks each.

The tuition fee for this Summer Session will be one-third of the regular fee for the academic year plus the regular University fee of \$10 and a deposit fee of \$10. Registration and payment of fees should be completed not later than the first day of the Summer Session.

Where groups of students desire to take summer work for the purpose of obtaining advanced standing or other reason, it can be arranged between the group and the instructor with the approval of the Dean provided a sufficient number enroll to make up a class. Tuition fees will be in ratio to the regular year's tuition fee as the time of the work is to the regular academic year. No reduction in the regular year's tuition fee will be made on account of credit obtained in summer courses of less than a full trimester's work.

COURSES IN ORAL HYGIENE

The courses in oral hygiene offered by the School of Dental and Oral Surgery are intended for women who desire to become licensed dental hygienists. The requirements for admission are the Qualifying Certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, and the attainment of at least eighteen years of age. For full information address Professor ANNA V. HUGHES, at 630 West 168th Street.

COURSES FOR GRADUATES

Several types of instruction for graduates are available from the short intensive clinical course of a few days to the protracted graduate courses leading to the degrees of Master of Arts or Doctor of Philosophy.

The Faculty is always willing at the request of practitioners to conduct through

the Extension Division short courses in any subjects in dentistry that may be desired, providing it can be done without interference with the regular routine work of the School. It is the business of the Extension Division to arrange such courses to suit the convenience in time and place of those who take and those who give the courses. The fees for such special short courses are on the basis of cost. For information in regard to such courses address Advanced Courses, School of Dental and Oral Surgery, 630 West 168th Street.

It is usually possible in each division of the School to accommodate two or three dentists who desire to come into the School for study and clinical practice under the regular teaching staff. The candidate for such work must be an ethical dentist recommended by his local dental society. If he desires to register for work he applies to the Dean who, in conference with the teachers concerned, passes on the application. If acceptable the candidate registers and pays a tuition fee which is proportional to the regular undergraduate year fee as the amount of work registered for is to an undergraduate year of work. Any amount of work over a minimum equaling five trimester credits may be arranged for. Such work does not lead to credit or toward a degree or certificate.

CERTIFICATE OF PROFICIENCY

The School of Dental and Oral Surgery is authorized to grant a Certificate of Proficiency in Dentistry or in a special branch of dentistry selected by the candidate and approved by the School of Dental and Oral Surgery to students who have complied with the requirements stated below.

The requirements for admission shall be graduation from the School of Dental and Oral Surgery or from another acceptable school of dentistry in the United States or in a foreign country and the applicant must be a member in good standing of his national dental association.

The course of study for the Certificate of Proficiency shall include not less than thirty-two points (forty-eight trimester credits) of special work in the clinical branches of dentistry not leading toward a Master's or Doctor's degree, approved by the Dean of the School of Dental and Oral Surgery.

The fee for the year's work leading to the Certificate of Proficiency is the same as for undergraduate work in the School.

Application blanks may be obtained from the office of the Dean, School of Dental and Oral Surgery, 630 West 168th Street. When application for registration is made, the candidate is passed upon by the Dean and the teachers concerned and, if accepted, registers in the regular manner.

By extension of the usual time required for qualification for the Master's or Doctor's degree it is possible to combine the work for the Certificate of Proficiency with that for the graduate degree.

ADVANCED AND GRADUATE WORK IN ORTHODONTIA

Since 1927 a twelve-month organized course has been offered to graduates of dentistry wishing to prepare for specialization in orthodontia. Admission requirements include graduation from an acceptable school of dentistry and membership in good standing of the national dental organization of the appli-

cant's country. The membership requirement does not apply to students who enter within a year of graduation.

Over six hundred patients are now under treatment in the clinic, affording unsurpassed opportunity for gaining a broad clinical experience. The class is assigned in sections of not more than three students to a given teacher, thus assuring close personal instruction. The clinic is open from 9:00 a. m. to 12:30 p. m. daily throughout the calendar year, except Sundays and legal holidays.

Didactic instruction consists of weekly conferences on practical subjects supplemented by special lectures on biology, embryology and histology, anatomy, child psychology, facial art, photography, and metallurgy.

The Certificate of Proficiency in Orthodontia is granted at the end of the twelve-month period to those who satisfactorily complete the course. Upon those whose qualifications are acceptable to the Graduate Faculties of Columbia University, the Master's degree may be conferred for work completed in this department.

For application blanks or special information apply to the Director of the Division of Orthodontia or the Dean, School of Dental and Oral Surgery, 630 West 168th St., New York, N. Y.

GRADUATE COURSES

Graduation from acceptable dental schools under the present curriculum of four academic years preceded by two pre-dental college years is accepted by the Graduate Faculties of Columbia University as qualification for admission. For information regarding the curricula leading to the Master of Arts or the Doctor of Philosophy degrees in these Faculties see the Graduate Announcement.

REGISTRATION

Before attending University courses, every student must present himself at the office of the Registrar, and file a registration blank giving such information as may be required. The periods set aside for registration in each session are stated in the Academic Calendar found at the end of this Announcement. Registration at a later date is permitted only on the written permission of the Dean, satisfactory cause for the delay having been shown.

FEES

The University Statutes provide that tuition fees, the University fee, and laboratory deposits are payable semiannually in advance. No reduction is made for late registration. Registration will not be complete until such fees are paid. Checks should be drawn to the order of Columbia University and presented in person or mailed to the Office of the Bursar. Payment of fees after the last day of registration (see Academic Calendar) imposes automatically the statutory charge of \$6.00 for this privilege. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

(a) University Fee

For all students (except those in University Extension and Summer Session), for each Winter or Spring Session or for any part thereof . . . \$10

*For students in University Extension exclusively, for a Winter or Spring Session or any part thereof, and for students in a Summer Session or any part thereof . . . \$7

(b) Tuition Fee

For all students, per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed . . . \$10

With the proviso that the minimum fee for a Winter or Spring Session in the case of a student enrolled for ten points or more in the School of Law shall be not less than \$150, and in the case of a student enrolled for the full course in the School of Medicine or in the School of Dental and Oral Surgery not less than \$250, and in the case of a student enrolled for the full course in Oral Hygiene not less than \$150.

(c) Fee for Application

For any degree . . . \$20

For any certificate . . . \$10

(d) Privileges

1. Late registration or late application for a degree or certificate or for deficiency or special examinations . . . \$6

2. Late application for entrance examinations . . . \$1

3. Deficiency and special examinations . . . \$3

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.

(e) Entrance Examinations—for each series . . . \$10

(f) Rebates

1. The University fee and the fee for application for any degree or certificate shall not be subject to rebate.

2. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fee shall be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a partial return of fees may be authorized by the Registrar.

(g) Student Activities Fee

For all male students matriculated in any School of the University in which the first degree is normally granted four years after admission to college, for each Winter or Spring Session, or any part thereof . . . \$10

One-half of the amount received in each session on account of this fee to be expended on the maintenance of athletic activities, and one-half to be expended on the maintenance of non-athletic activities of students in Columbia College, provided that all such expenditures shall be subject to the authority of the President.

Male students in the graduate and professional schools will be entitled to certain privileges on payment of the student activities fee of \$10, for each Winter or Spring Session or any part thereof.

When a rebate is allowed for the discontinuance of courses or withdrawal from

*As the twelve-weeks' Summer Session in the School of Dental and Oral Surgery equals a full trimester, the University fee is \$10.

the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in course, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals, beyond this allowance; and service in washing apparatus, or work by a mechanic. A deposit of \$25 will be required in the School of Dental and Oral Surgery each year to cover material and breakage in the laboratories; for each Summer Session, \$10.

Instruments. All students are required to supply themselves with the necessary instruments as listed in the official instrument list.

Microscopes. Beginning with the group entering in the fall of 1930, students will be required to provide themselves with microscopes of a satisfactory type. A standard microscope of Bausch and Lomb, Leitz, Reichert, Siebert, Spencer Lens or Zeiss make fitted with the following attachments will fill the requirements:

Triple nosepiece	16 m.m. and 4 m.m. objective or equivalent
Abbe substage condenser	
10x and 6x oculars	Oil immersion lens
	Substage lamp

The cost of a suitable microscope varies from \$60 to \$150 according to the condition and make.

Supplies. All technic material and regular supplies *must* be purchased from the University upon an order from the instructor. The students will not be allowed to purchase more than is required to complete a case. The quantity and quality are selected with a view to the best possible results and conservation of the students' best interests.

Lockers. Each student on entering will be required to supply himself with two combination locks as prescribed by the School. Locks are one dollar each.

ESTIMATED EXPENSES FOR ACADEMIC YEAR

Following is an itemized estimate of expenses of attendance in the School of Dental and Oral Surgery for a full academic year. The tuition, room, board, books, instruments, and laundry figures are based upon actual prevailing rates. The cost of clothes, travel, and incidentals is of course variable, depending upon the tastes and financial situation of the individual, but the figures quoted have been arrived at after a careful study of present conditions.

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$530	\$530
Room (36 weeks)	212	170
Board (36 weeks)	366	288
Books	40	28
Instruments (See Note)	120	100
Laundry	50	34
Additional expenses, including clothing, travel, charity, organizations, and sundries	300	200
	<hr/> \$1618	<hr/> \$1350

The total cost of instruments for the four-year course is from \$400 to \$480, an average yearly cost of \$100 to \$120. It should be noted that the instruments for the first two years cost from \$240 to \$300.

Room prices are based on rates in the University Residence Halls. Prices in the neighboring rooming houses are slightly higher.

Medical advice and treatment of minor ailments are rendered free of charge by the University Medical Office.

Many students reduce their expenses by sending their laundry home weekly via parcel post.

EXAMINATIONS AND STANDING

Examinations are held at the end of the course and conditional examinations are held at suitable times following Christmas, spring, and summer recesses.

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examinations in all the subjects of the entire four-years' course.

A student's performance in a course is recorded according to the following grades; A, excellent; B, good; C, fair; D, condition; F, failure; Inc., incomplete. A, B, and C are passing grades.

CONDITIONS, FAILURES AND INCOMPLETES

Conditions: 1. Any student receiving a D in a course is conditioned for that course.

2. Students receiving a condition in a course may be entitled to one reëxamination in that work. In accordance with the University Statutes, a fee of \$3.00 is payable for each conditional examination. These examinations will be given by the departments as follows:

(a) Conditional examinations will be given for conditions received in the first trimester at a suitable date following the Christmas recess.

(b) Conditional examinations will be given for conditions received in the second trimester at a suitable date following the spring recess.

(c) Conditional examinations will be given for conditions received in the third trimester at a suitable date following the summer recess.

The summer recess for students on the forty-four week schedule is the period between the end of the third trimester and the beginning of the Summer Session.

If the examination is passed a grade of C will be substituted for the D originally recorded. If the examination is failed, the D automatically becomes F.

Failures: 1. Any student receiving an F in a course is failed for that course.

2. Failure may be removed only by repetition of the same or an equivalent course in this or another school with evidence of satisfactory completion, such course to be acceptable to the department concerned.

Incomplete: 1. Any student receiving an Inc. in a course is incomplete in that course.

2. An incomplete may be given when the character of the work submitted has been satisfactory but for some good reason a student has been unable to complete a sufficient amount of work to satisfy the academic credit allotted to the course. Satisfactory completion of the requirement will remove the incomplete. All incompletes must be removed before the student can proceed with the work of the following year.

Absence from Final Examination: A student absent from a regular scheduled final examination for imperative reasons must take a conditional examination at the stated time before receiving a grade. In such cases a grade will be assigned without prejudice.

QUALIFICATIONS FOR PROMOTION

Promotion will be granted to:

1. Such students as have received passing grades in all subjects.

2. Such students as have received conditions or failures amounting to less than one-third of the year's work, providing such conditions or failures are removed before the beginning of the following year's work.

Students who have received conditions or failures amounting to one-third or more of the year's work must repeat the work of the entire year.

A student may repeat an entire year only once during his dental course and may not repeat any other year later unless the Faculty of Dentistry votes to suspend this rule in his case on the recommendations of the class Faculty under which the student has been working.

The class Faculties have general supervision of students' work and the application of these regulations to individual cases.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years or their equivalent in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dental and Oral Surgery.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address the Chief of Professional Examinations Bureau, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least ten days before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

EWELL PRIZE

A prize to be known as the Ella Maria Ewell Medal will be awarded annually to that student of the School of Dental and Oral Surgery who may, in the judgment of the Faculty, be most proficient in some subject of dentistry. The branch of dentistry for which the award is made will be determined by the executors of the will of Glover C. Beckwith-Ewell.

32 WEEKS A YEAR FOR STUDENTS ENTERING

Department	Fall (1)			Winter (2)			Spring (3)			Fall (4)			Winter (5)		
	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.
Anatomy, Gross.....	3	18	9	3	18	9	..	..	..	..	..	..	..	..	..
Anatomy, Histology and Embryology.....	3	12	7	..	..	..	2	6	4	..	..	..	..	..	..
Anatomy, Neuro.....	4	9	7	..	..	..
Bacteriology and Immunology.....	2	6	4	2	9	5	..	..	..	..	..	..
Biochemistry.....
Dentistry.....
Anatomy, Oral.....	1	..	1	..	..	..	9	3	..	6	2	..	..	..	..
Children's Dentistry.....
Crown and Bridge.....
Diagnosis, Oral.....
Histology, Oral.....	3	1	1
Hygiene, Oral and Prophylaxis.....	3	1	..	3	1	1
Metallurgy, Dental.....
Operative Dental.....	6	2	..	6	2	..
Orthodontia.....
Pathology, Oral.....
Periodontia.....
Prosthetics.....	6	2	..
Radiology.....	3	1	1
Surgery, Oral.....	1	..	1
Theory and Practice.....
Therapeutics, Oral.....
Electives.....
Pathology.....	3	8	6	4	11	8
Pharmacology.....	1	..	1
Physiology.....	2	6	4	3	6	5	..	..	..	..	..	..
Practice of Medicine.....
Psychopathology.....
Public Health.....
Total.....	7	30	17	7	30	17	7	30	17	7	32	18	6	32	17

44 WEEKS A YEAR FOR STUDENTS ENTERING

Department	Fall (1)			Winter (2)			Spring (3)			Summer (4)			Fall (5)		
	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.
Anatomy, Gross.....	3	18	9	3	18	9	..	..	..	..	..	..	..	..	..
Anatomy, Histology and Embryology.....	3	12	7	..	..	..	2	6	4	..	..	..	..	..	..
Anatomy, Neuro.....
Bacteriology and Immunology.....	4	9	7
Biochemistry.....	2	6	4	2	9	5	..	..	..	..	..	..
Dentistry.....
Anatomy, Oral.....	1	..	1	..	..	..	9	3	..	6	2	..	..	..	..
Children's Dentistry.....
Crown and Bridge.....
Diagnosis, Oral.....
Histology, Oral.....
Hygiene, Oral and Prophylaxis.....
Metallurgy, Dental.....	3	1	1
Operative.....	12	4	..	6	2	..
Orthodontia.....	3	1	..	..	..	..
Pathology, Oral.....
Periodontia.....
Prosthetics.....
Radiology.....	24	8	..	3	1	1
Surgery, Oral.....
Theory and Practice.....
Therapeutics, Oral.....
Electives.....
Pathology.....	6	..
Pharmacology.....	3	8	..
Physiology.....	2	6	4	3	6	5	..	..	..	..	..	..
Practice of Medicine.....
Psychopathology.....
Public Health.....
Total.....	7	30	17	7	30	17	7	30	17	..	45	15	7	29	17

CURRICULUM SCHEDULE

SEPTEMBER, 1929 AND SEPTEMBER, 1930

Spring (6)			Fall (7)			Winter (8)			Spring (9)			Fall (10)			Winter (11)			Spring (12)			Total Cr.	Total Hrs.
class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.		
..	18	360
..	7	150
..	4	80
..	7	130
..	9	190
..	6	160
..	4	100
..	9	3	I	6	3	I	12	5	..	3	2	..	9	3	..	3	I	18	500
I	..	I	I	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	50
..	3	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	60
..	3	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	80
..	12	4	I	9	4	..	6	2	I	9	4	..	6	2	..	9	3	I	9	4	27	750
..	1/2	..	3	1 1/2	..	3	I	..	..	..	..	..	..	..	..	..	3	80
..	3	2	I	3	2	..	..	..	..	..	..	..	..	..	5	90
..	3	I	..	3	I	..	..	..	..	..	..	..	..	..	3	70
..	9	3	..	6	2	..	9	3	I	6	3	..	9	3	I	6	3	..	9	3	22	620
I	..	I	..	..	..	..	I	3	2	..	..	..	3	2	..	I	..	..	..	..	I	30
..	I	..	..	I	..	..	..	..	7	150
..	I	..	..	I	..	..	..	..	I	30
..	3	I	..	6	2	..	6	2	8	180
3	6	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	260
..	6	100
..	9	170
I	..	I	..	..	..	..	..	..	..	2	3	3	2	..	2	2	..	2	2	..	7	90
..	I	..	I	..	I	..	I	..	I	1	10
..	3	30
6	33	17	6	33	16 1/2	6	33	16 1/2	6	33	17	7	33	17	7	34	17	6	34	17	204	4590

CURRICULUM SCHEDULE

SEPTEMBER, 1929 AND SEPTEMBER, 1930

Winter (6)			Spring (7)			Summer (8)			Fall (9)			Winter (10)			Spring (11)			Summer (12)			Total Cr.	Total Hrs.
class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.	class hrs.	lab. hrs.	tri. cr.		
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	360
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	150
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	80
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	130
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	190
..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	6	160
..	..	..	..	6	2	..	6	2	I	3	2	..	3	I	..	3	I	..	3	I	4	100
..	..	..	..	I	..	..	I	3	2	..	..	..	9	3	..	9	3	2	12	6	18	500
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	50
..	3	I	..	3	I	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	60
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	80
..	6	2	..	3	I	..	3	I	..	..	..	..	..	..	..	..	..	..	..	..	2	60
..	..	..	..	3	I	2	9	5	..	6	2	..	9	3	..	9	3	I	12	5	27	750
..	..	..	..	..	..	..	..	..	..	I	1/2	..	I	..	..	3	I	..	..	..	3	80
..	..	..	..	..	..	..	..	..	..	I	..	I	3	2	..	I	3	2	..	..	5	90
..	6	2	I	6	3	..	6	2	..	3	I	..	3	I	..	I	..	..	..	..	3	70
..	3	I	..	..	..	..	..	..	..	3	I	..	3	I	..	3	I	I	6	3	22	620
I	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	30
..	..	..	..	..	..	..	..	..	..	2	3	2	2	I	..	I	..	..	..	..	7	150
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	30
..	..	..	..	3	I	..	3	I	..	3	I	..	3	I	..	I	..	..	..	..	1	10
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	150
4	11	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	260
I	..	I	..	3	6	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	100
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	170
..	..	..	..	..	..	..	..	..	..	2	3	2	..	2	..	2	..	2	..	..	7	90
..	..	..	..	..	..	..	..	..	..	I	..	I	..	I	..	I	..	..	..	..	3	30
6	32	17	7	30	17	6	33	17	8	30	16 1/2	7	34	16 1/2	6	34	17	7	30	17	201	4560

COURSE OF STUDIES

For purposes of instruction the work of each year is scheduled in three trimesters of ten weeks each from September to May. These are designated as First, Second, and Third, and in 1930-1931 begin on September 24, December 5, and February 28 respectively. The twelve-weeks' Summer Session begins June 4 and ends August 26. Registration and collection of fees for the regular academic year are administered in accordance with the University Academic Calendar. Students will file their schedules for the First and Second Trimesters at the time of the September registration; for the Third Trimester, in January.

Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., in their first and second years. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years, and to graduates in dentistry.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any trimester and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the class Faculty, may substitute elective courses or research in that department for the prescribed courses.

SUMMARY OF STUDIES

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

The outlines on pages 28 and 29, drawn up from the point of view of the student and covering the four years' study, show the work required of a candidate for the degree of Doctor of Dental Surgery. The number of hours shown indicates the number of lecture and laboratory hours per week for each trimester. The unit of credit used is the trimester credit which signifies approximately three hours of work a week for one trimester of ten weeks. For classroom work this means one hour in class a week, each requiring an average of two hours of home work. For laboratory or clinical work requiring no outside study it represents three hours of work a week in the School. For a detailed statement of the content of each course, and other questions of detail, the student is referred to the departmental statements which follow.

The schedules of required work hours are subject to change at the pleasure of the Faculty.

DEPARTMENTAL STATEMENTS

ANATOMY

Anatomy 150F—Histology and histogenesis. 15 hours a week for one trimester. First year. 7 trimester credits or 6 points. Professor A. E. SEVERINGHAUS, Dr. R. L. CARPENTER, and assistants.

Lectures, conferences and laboratory.

This course is the same as the Medical School course *101P*, the two classes being taught together.

Anatomy 151FS—Systematic human anatomy. 18 hours a week for two trimesters. First year. 18 trimester credits or 12 points. Professor B. B. GALLAUDET and assistants.

Lectures, conferences and laboratory.

This course is equivalent to the Medical School course *102FST*.

BACTERIOLOGY

Bacteriology 151F—General medical bacteriology and immunology. 9 hours a week for one trimester. Second year. 5 trimester credits or 3 points. Professor R. W. LINTON and assistant.

Lectures, conferences and laboratory.

This course is the same as the Medical School course *101F* in bacteriology up to the point of special problems.

Bacteriology 152F—Principles of epidemiology, infection, immunity, serum diagnosis and therapy. 4 hours a week for one trimester. Second year. 4 trimester credits or 3 points. Professor F. P. GAY.

Lectures given to the dental and medical students together.

BIOLOGICAL CHEMISTRY

Biochemistry 150ST—General physiological chemistry. 8 hours a week for one trimester and 11 hours for the second. First year. 9 trimester credits or 8 points. Professor M. KARSHAN and assistants.

Lectures, recitations and laboratory. Course includes the elements of normal nutrition and dietetics.

This course is equivalent to the Medical School course *101ST*.

DENTISTRY

Dentistry 101—Oral anatomy. 1 hour a week for one trimester, 9 hours a week for one trimester and 6 hours a week for a third. First and second years. 6 trimester credits. Professor M. DIAMOND and assistant.

Lectures, recitations and laboratory on the anatomy and development of the individual teeth and the dentures as a whole.

Dentistry 202—Children's dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor E. C. McBEATH and assistants.

Lectures and conferences on operative and preventive dental procedures for children, the handling of the child patient and the application of present knowledge of preventive dentistry to the patient.

Dentistry 203—Children's dentistry clinic. 3 hours a week for three trimesters. Fourth year. 3 trimester credits. Professor E. C. McBEATH and assistants.

Dentistry 204—Children's dentistry elective.

See Electives, page 35.

Dentistry 205—Crown and bridge technic. A total of approximately 210 hours. Third year. 7 trimester credits. Professors A. T. ROWE, E. B. HOYT, and W. H. CRAWFORD and assistants.

Lectures and laboratory on the technical procedures in crown and bridge work. When the technical work is completed the work is continued as crown and bridge clinic.

Dentistry 206—Crown and bridge. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor E. B. HOYT.

Lectures on the technical procedures of crown and bridge work.

Dentistry 207—Crown and bridge. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor E. B. HOYT.

Conference course with outside reading on problems in crown and bridge work.

Dentistry 208a-b—Crown and bridge clinic. A total of 270 hours. Third and fourth years. 208a—third year; 208b—fourth year. 9 trimester credits. Professors A. T. ROWE, E. B. HOYT, and W. H. CRAWFORD and assistants.

Dentistry 209—Crown and bridge elective.

See Electives, page 36.

Dentistry 212—Oral diagnosis. 1 hour a week for one trimester. Second year. 1 trimester credit. Professor H. J. LEONARD.

Lecture and conference course in oral examination and charting, history taking, oral diagnosis, and dental X-ray interpretation.

Dentistry 213—Oral diagnosis. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor H. J. LEONARD.

Lectures and conferences on the subject of the anatomy, physiology, and mechanics of dental occlusion and the causes, effects, prevention and treatment of abnormal occlusion, excluding orthodontia.

Dentistry 214—Oral diagnosis. A total of 30 hours. Third year. 1 trimester credit. Professors H. J. LEONARD and clinical staff.

Laboratory exercises, clinical practice and demonstration in oral examination and charting, history taking, oral diagnosis, dental X-ray interpretation and the study of dental occlusion.

Dentistry 115—Oral histology and embryology. 3 hours a week for two trimesters. Second year. 2 trimester credits. Professor C. F. BODECKER and Dr. E. APPELBAUM.

Lectures and laboratory work on the microscopic structures of the oral tissues and the application of this knowledge to technical dentistry.

Dentistry 216—Oral histology and embryology elective.

See Electives, page 36.

Dentistry 221—Oral hygiene and prophylaxis. 3 hours a week for two trimesters. Second year. 2 trimester credits. Professor A. Hughes and Miss K. F. HOLLIS and assistants.

Lectures, laboratory, and clinical work on personal dental hygiene and dental prophylactic technic.

Dentistry 222—Oral hygiene. 2 hours a week for two trimesters. Third year. 2 trimester credits. Professor H. J. LEONARD.

Lectures and conferences on the application of bacteriology, physiology, and biochemistry to preventive dentistry. Community dentistry.

Dentistry 224—Oral hygiene elective.

See Electives, page 36.

Dentistry 226—Dental metallurgy. 1 hour a week for two trimesters. Third year. 2 trimester credits. Instructor to be announced.

Metallurgical processes and apparatus. Physical and chemical properties of the metals and other materials used in dentistry. Lectures and laboratory work.

Dentistry 227—Metallurgy elective.

See Electives, page 36.

Dentistry 131-231—Operative dentistry technic. A total of 180 hours in three trimesters. Second and third years. 131—second year; 231—third year. 6 trimester credits. Professors L. L. HARTMAN, M. BUCHBINDER, Dr. G. F. LINDIG and assistants.

Lectures and laboratory work on operative instruments and materials, their care and uses, root canal technic and the technic of cavity preparations and fillings. When the technic is completed the work is continued as operative dentistry clinic.

Dentistry 233—Operative dentistry. 2 hours a week for two trimesters. Third year. 2 trimester credits. Professor L. L. HARTMAN.

Lectures and conferences on operative dentistry procedures.

Dentistry 134-234—Operative dentistry clinic. A total of 540 hours. Third and fourth years. 134—third year; 234—fourth year. 18 trimester credits. Professors L. L. HARTMAN, M. BUCHBINDER, Dr. G. F. LINDIG and assistants.

Dentistry 235—Operative dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor L. L. HARTMAN.

Conference course on problems in operative dentistry.

Dentistry 239—Operative dentistry elective.

See Electives, page 36.

Dentistry 241—Orthodontia. 30 hours of laboratory work. Second or third year. 1 trimester credit. Professor L. M. WAUGH and staff.

Laboratory instruction in free hand soldering, the fundamental technic of making appliances and space retainers.

Dentistry 242—Orthodontia. 1 hour of lecture per week for two trimesters and a total of 30 hours of demonstrations. Third year. 2 trimester credits. Professor L. M. WAUGH and staff.

Orthodontic procedures with special emphasis on the factors which predispose to malocclusion.

Dentistry 243—Orthodontia elective.

See Electives, page 36.

Dentistry 246—Oral pathology. 1 hour a week lecture for three trimesters, 3 hours a week laboratory for two trimesters. Third year. 5 trimester credits. Professors J. SCHROFF, L. R. CAHN and assistant.

Lectures, conferences and laboratory work on the microscopic and macroscopic study of the diseases and deformities of the jaws, mouth and teeth.

Dentistry 247—Oral pathology elective.

See Electives, page 36.

Dentistry 251a-b—Periodontia clinic. 60 hours. *251a*—third year; *251b*—fourth year. 2 trimester credits. Professors W. B. DUNNING, H. J. LEONARD, and I. HIRSCHFELD.

Lectures and clinical work in the diagnosis and treatment of periodontoclasia.

Dentistry 252—Periodontia. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professors W. B. DUNNING, H. J. LEONARD, and I. HIRSCHFELD.

Lectures and conferences on the theory and practice of periodontia.

Dentistry 253—Periodontia elective.

See Electives, page 36.

Dentistry 155-255—Prosthetic dentistry technic. A total of approximately 270 hours. Second and third years. *155*—first year; *255*—second year. 9 trimester credits. Professors A. T. ROWE and W. H. CRAWFORD and Dr. F. C. KUIVER and assistants.

Lectures and laboratory on the mechanics of denture construction. When the technic is completed, the work is continued as prosthetic dentistry clinic.

Dentistry 256—Prosthetic dentistry. 1 hour a week for one trimester. Third year. 1 trimester credit. Professors A. T. ROWE and W. H. CRAWFORD.

Lectures and conferences on materials and principles of denture construction.

Dentistry 258a-b—Prosthetic dentistry clinic. A total of 330 hours. Third and fourth years. *258a*—third year; *258b*—fourth year. 11 trimester credits. Professor A. T. ROWE and Dr. F. C. KUIVER and assistants.

Infirmary practice and demonstrations in denture construction.

Dentistry 259—Prosthetic dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor A. T. ROWE.

Conference course on fundamental problems in prosthetic dentistry given toward the end of the clinical work.

Dentistry 260—Prosthetic dentistry elective.

See Electives, page 36.

Dentistry 165—Oral radiology. 3 hours a week for one trimester. Second year. 1 trimester credit. Professor H. HOLLIDAY.

Lectures and practice on X-ray apparatus and the technic for taking and processing dental X-ray films and the principles of X-ray interpretation.

Dentistry 266—Oral radiology elective.

See Electives, page 36.

Dentistry 168—Principles of surgery. 1 hour a week for two trimesters. Second year. 2 trimester credits. Professors D. PARKER and F. S. McCAFFREY. Lectures and conferences in general surgical diseases and the principles of their treatment.

Dentistry 270—Oral surgery. 1 hour a week lecture for one trimester. Third year. 1 trimester credit. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFREY, S. BIRENBACH, Drs. H. MOSS and M. A. ZIMMER and assistants.

Lectures and conferences on local and general anesthesia and exodontia.

Dentistry 271—Oral surgery clinic. A total of 60 hours. Third and fourth years. 2 trimester credits. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFREY, S. BIRENBACH and assistants.

Clinical practice and demonstrations in local anesthesia and exodontia. Time is also assigned to observation of oral surgical operations and to an organized oral pathology clinic.

Dentistry 272—Oral surgery. 2 hours a week for two trimesters. Fourth year. 2 trimester credits. Professors H. S. DUNNING, A. BERGER, and D. PARKER.

Lectures and conferences on oral and maxillo-facial surgery.

Dentistry 273—Oral surgery. A total of 30 hours. Fourth year. No credit. Professors H. S. DUNNING, A. BERGER, and D. PARKER.

Demonstration of oral and maxillo-facial lessons.

Dentistry 274—Oral surgery elective.

See Electives, page 37.

Dentistry 281—Theory and practice of dentistry. 1 hour a week for three trimesters. Fourth year. 3 trimester credits. Professors H. W. GILLET, A. OWRE, and M. C. TRACY.

A lecture and conference course including an undergraduate thesis on the history of dentistry, dental ethics, dental economics, dental jurisprudence and other subjects.

Dentistry 285—Oral therapeutics. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor J. SCHROFF.

Lectures and conferences on therapeutic agents used in dentistry.

ELECTIVES

For electives in anatomy, bacteriology, biochemistry, pathology, pharmacology, physiology, see Announcement of the College of Physicians and Surgeons.

Dentistry 204—Children's dentistry elective. Time and credit to be arranged. Professor E. C. McBEATH.

Special problems as related to children's dentistry may be arranged as desired with the approval of Professor McBEATH.

Dentistry 209—Crown and bridge. Time and credit to be arranged. Professors A. T. ROWE, E. B. HOYT and W. H. CRAWFORD.

Further practice and advanced work may be arranged as desired with the approval of the head of the division.

Dentistry 216—Oral histology and embryology. Time and credit to be arranged. Professor C. F. BODECKER.

Advanced work may be arranged as desired with the approval of Professor BODECKER.

Dentistry 224—Oral hygiene. Time and credit to be arranged. Professor H. J. LEONARD.

Special problems in the fundamental sciences relating to oral hygiene and preventive dentistry may be arranged with the approval of Professor LEONARD.

Dentistry 227—Dental metallurgy. Time and credit to be arranged.

Special problems in metallurgy as related to dentistry may be arranged as desired with the approval of the instructor.

Dentistry 239—Operative dentistry. Time and credit to be arranged. Professor L. L. HARTMAN.

Special problems and advanced work may be arranged as desired with the approval of Professor HARTMAN.

Dentistry 243—Orthodontia. Time and credit to be arranged. Professors L. M. WAUGH, B. G. ANDERSON, and B. E. DAHLGREN, and Drs. E. G. MURPHY, D. HUTCHINSON, A. C. TOTTEN, G. S. CALLAWAY, and assistants.

Advanced orthodontia technic and further clinical experience gained by assisting members of the clinical staff. Students who elect to take more than two credits will help to treat patients under direct supervision.

Dentistry 244—Facial art. Time and credit to be arranged. Mrs. K. W. KINGSBURY.

A study of the principles of art and æsthetics as applied to dentistry. Lectures or laboratory or both combined.

Dentistry 247—Oral pathology. Time and credit to be arranged. Professors J. SCHROFF, L. CAHN and assistant.

Advanced work and special problems in oral pathology or oral bacteriology may be arranged as desired with the approval of Professor SCHROFF.

Dentistry 253—Periodontia. Time and credit to be arranged. Professors W. B. DUNNING, H. J. LEONARD and I. HIRSCHFELD.

Advanced work and special problems may be arranged as desired with the approval of the staff.

Dentistry 260—Prosthetic dentistry. Time and credit to be arranged. Professor A. T. ROWE.

Special problems and advanced work may be arranged as desired with the approval of Professor ROWE.

Dentistry 266—Oral radiography. Time and credit to be arranged. Professor H. HOLLIDAY.

Special problems and advanced work may be arranged as desired with the approval of Professor HOLLIDAY.

Dentistry 274—Oral surgery. Time and credit to be arranged. Professors H. S. DUNNING, D. PARKER, A. BERGER, F. S. MCCAFFREY and staff.

Special problems and advanced work may be arranged as desired with the approval of the staff.

NEUROLOGY

Neurology 150—Neuro-anatomy. 2 hours of lecture and 6 hours of laboratory a week for one trimester. First year. 4 trimester credits or 3 points. Professors O. S. STRONG, B. STOOKEY, and A. ELWYN.

Lectures and demonstrations on the gross anatomy, structure, and functions of the central nervous system. This course is equivalent to the Medical School course *Neurology 101*.

PATHOLOGY

Pathology 150FS—General and special pathology. 11 hours lecture and laboratory a week for one trimester and 15 hours a week for the second. Second year. 14 trimester credits. Professors J. W. JOBLING and M. N. RICHTER and Dr. E. MOTT and assistants.

Lectures and laboratory.

This course is equivalent to the Medical School course *Pathology 101*, and is also open to candidates for the degrees of A.M. or Ph.D.

PHARMACOLOGY

Pharmacology 150—General pharmacology. 1 hour a week for one trimester and 9 hours a week for another trimester. 6 trimester credits or 5 points. Second year. Professor C. C. LIEB and assistants.

Lectures and laboratory. In this course the pharmacological action of drugs on man and lower animals is studied. Short courses in pharmacy and prescription writing are included.

This course is equivalent to the Medical School course *Pharmacology 101S*, the two classes being taught together for lectures. Laboratory sections are separate.

PHYSIOLOGY

Physiology 150—Mammalian physiology. 8 hours a week for one trimester and 9 hours a week for the second trimester. First year. 9 trimester credits or 10 points. Professor H. B. WILLIAMS and assistants.

Lectures, conferences and laboratory. This course is equivalent to the Medical School course *Physiology 101*, the two classes being taught together for lectures.

PRACTICE OF MEDICINE

Practice of Medicine 250—General survey of medicine. 3 hours per week for three trimesters. 9 trimester credits or 6 points. Fourth year. Professor W. W. PALMER and Dr. D. MOORE.

Lectures, conferences and clinics covering systematically the field of general medicine.

Practice of Medicine 251—Medico-dental clinic. A total of 30 hours of clinic in three trimesters. Fourth year. 1 trimester credit. Dr. D. MOORE.

Clinics in small groups in which the dental patients are studied for systematic relationships emphasizing medical history taking.

PSYCHIATRY

Psychiatry 150T—Psychopathology. 1 hour a week for one trimester. Second year. 1 trimester credit or 1 point. Professor C. I. LAMBERT.

Lectures on the structural basis of the mind; the instincts and emotions; development of the personality; social adjustment, failures in adjustment, compensatory reactions; types of abnormal behavior; emotional neurotic and personality factors in physical illness; functional disorders with special reference to dental practice. General principles of mental hygiene.

This course is the same as the Medical School course *Psychiatry 101*.

PUBLIC HEALTH

Public Health 250—Preventive medicine and public health administration. 1 hour a week for three trimesters. Fourth year. 3 trimester credits or 2 points. Professor H. EMERSON and assistants.

This course is the same as the Medical School course, preventive medicine and *Public Health Administration 201FST*, the two classes being taught together.

REQUIRED TEXTBOOKS

The following list includes most of the books recommended. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York. These prices are liable to fluctuation. As a rule, the latest editions only of the textbooks should be purchased. Students are warned against buying any books until specifically advised by the departments concerned.

ANATOMY. Choice of Cunningham, *Anatomy*, \$10.00; Piersol, *Anatomy*, \$9.00.

BACTERIOLOGY. Choice of Park and Williams, *Pathogenic Micro-organisms*, \$6.50; Zinsser, *Text-book of Bacteriology*, \$7.50.

BIOCHEMISTRY. Bodansky, *Introduction to Physiological Chemistry*, \$4.00; Hawk and Bergeim, *Practical Physiological Chemistry*, \$6.50.

DENTISTRY

Anatomy, oral. Diamond, *Dental Anatomy*. \$5.00.

Children's dentistry. Mimeographed notes furnished by the Department.

Crown and bridge. Mimeographed notes furnished by the Department.

Diagnosis, oral. Mimeographed notes furnished by the Department.

Histology, oral. Bodecker, *Fundamentals of Dental Histology and Embryology*, \$6.50.

Hygiene, oral. Fones, *Mouth Hygiene*, \$5.00, or Fones, *Preventive Dentistry*, \$2.50. Mimeographed notes are also furnished by the Department.

Metallurgy, dental. Mimeographed notes furnished by the Department.

Operative dentistry. Black, *Operative Dentistry*, Vols. 1 and 2, \$12.00. Mimeographed notes are also furnished by the Department.

Pathology, oral. Choice of Bunting, *Oral Pathology*, \$7.00 or Moorehead and Dewey, *Pathology of the Mouth*, \$7.00.

Periodontia. Mimeographed notes furnished by the Department.

Prosthetic dentistry. Wilson, *Dental Prosthetics*, \$5.50.

Surgery, oral. Berger, *Principles and Technique of Oral Surgery*, \$7.00;

Fischer and Reithmuller, *Local Anesthesia*, \$4.50; Blair and Ivy, *Essentials of Oral Surgery*; De Costa, *General Surgery*.

Histology and neurology. Elwyn and Strong, *Laboratory Course in Histology*, \$2.50; Bailey, Strong and Elwyn, *Text Book of Histology*, \$7.00.

PATHOLOGY. Choice of McCallum, *Text Book of Pathology*, \$10.00; Karsner, *Human Pathology*, \$10.00 or Delafield and Prudden, *Text Book of Pathology*, \$10.00.

PHARMACOLOGY. *Useful Drugs*, \$0.60; choice of Cushny, *Pharmacology and Therapeutics*, \$6.00; Dixon, *Manual of Pharmacology*, \$7.00; Sollmann, *Manual of Pharmacology*, \$7.50.

PHYSIOLOGY. Choice of MacLeod, *Physiology and Biochemistry in Modern Medicine*; Starling, *Human Physiology*; Howell, *A Text Book of Physiology*; Martin and Weymouth, *Elements of Physiology*.

PRACTICE OF MEDICINE. Choice of Cecil, *Text Book of Medicine*, \$9.00; Osler and McCrae, *Practice of Medicine*, \$7.50.

PSYCHIATRY. White, *Introduction to the Study of the Mind*, \$2.00.

PUBLIC HEALTH. Not required, but recommended for supplementary reading. Park, *Public Health and Hygiene*; Rosenau, *Preventive Medicine*; Moore, *Public Health in the United States*; Price, *Public Health and Hygiene*.

DICTIONARY. Choice of Stedman, *Medical Dictionary*, \$7.00; Dorland, *Illustrated Medical Dictionary*, \$8.00; Gould, *The Student's Medical Dictionary*, \$2.00.

ACADEMIC CALENDAR*

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- July 1 Tuesday. Registration in Summer Session begins.
- July 5 Saturday. Last day of registration for students desiring full credit.
- July 7 Monday. Thirty-first Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6, but half credit only will be granted. After July 15 no credit will be granted.
- August 1 Friday. Last day for filing applications for the degrees of Master of Science and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December.
Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 15 Friday. Thirty-first Summer Session ends.
- September 8 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 15 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES) FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- September 17 Wednesday, and September 18, Thursday. Placement examinations required of freshmen admitted to Columbia College.
- September 17 Wednesday, to October 4, Saturday. For University Extension students desiring credit.
- September 19 Friday, to September 24, Wednesday. For students in the School of Law, the School of Business (excepting graduate students), and Barnard College.
- September 20 Saturday to September 24, Wednesday. For students in Education and Practical Arts and the School of Journalism (excepting graduate students).
- September 22 Monday, to September 24, Wednesday. For students in Columbia College, Seth Low Junior College, the School of Engineering, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 22 Monday, to September 27, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business, and Journalism.

- September 24 Wednesday. Winter Session, 177th year begins.
- September 25 Thursday. Classes begin.
- September 27 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.

*The Medical and Dental Schools vary from this schedule as follows: The only holidays are on November 27 (Thanksgiving), December 22 to January 4 (inclusive) and March 30-April 5 (inclusive). Classes will be held on all other week days.

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- October 1 Wednesday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- October 4 Saturday. Last day for filing essays for the degree of Master of Science to be conferred in October.
- October 11 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy, and Pure Science.
- October 21 Tuesday. Stated meeting of University Council.
- November 4 Tuesday. Election Day, holiday.
- November 15 Saturday. Last day for filing essays for the degree of Master of Arts to be conferred in December.
- November 25 Tuesday. Annual Thanksgiving Service in St. Paul's Chapel.
- November 27 Thursday, to November 29, Saturday, inclusive. Thanksgiving holidays.
- December 1 Monday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- December 15 Monday. Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken at mid-year. The privilege of later application may be granted on payment of a fee of \$6.
- December 16 Tuesday. Stated meeting of the University Council.
- December 22 Monday, to

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- January 4 Sunday, inclusive. Christmas holidays.
- January 11 Sunday. Annual Commemoration Service in St. Paul's Chapel.
- January 21 Wednesday. Mid-year examinations begin.
- February 2 Monday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE SPRING SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- January 20 Tuesday, to January 26, Monday. For students in the School of Medicine.
- January 29 Thursday, to February 14, Saturday. For University Extension students desiring credit.
- January 31 Saturday, to February 3, Tuesday. For all other students.

- February 3 Tuesday. Winter Session ends.
- Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.

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- February 4 Wednesday. Spring Session begins. Classes begin.
- February 7 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.
- February 12 Thursday. Alumni Day.
- February 14 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy, and Pure Science.
- February 16 Monday. Stated meeting of University Council.
- February 21 Saturday. Last day for making changes in program for students in the Faculties of Political Science, Philosophy, and Pure Science.
- February 23 Monday. Washington's Birthday, holiday.
- March 2 Monday. Last day for filing applications for University Fellowships and University Scholarships.
- Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- March 10 Tuesday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- April 1 Wednesday. Last day for filing applications for examination for the degrees of Doctor of Philosophy and Doctor of Law to be conferred in June.
- Last day for filing Cutting Fellowship applications.
- April 2 Thursday, to April 6, Monday, inclusive. Easter holidays.
- April 15 Wednesday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken in May. The privilege of later application may be granted on payment of a fee of \$6.
- April 20 Tuesday. Stated meeting of University Council.
- May 1 Friday. Last day for students in Columbia College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
- Last day for filing applications for scholarships in the Schools of Law, Engineering, Architecture, and Columbia College.
- May 18 Monday. Final examinations for all courses begin.
- May 20 Wednesday. Last day for filing essays for the degrees of Master of Arts and Master of Science to be conferred in June.
- May 30 Saturday. Memorial Day, holiday.

COMMENCEMENT, MAY 31 TO JUNE 3

- May 31 Sunday. Baccalaureate Service.
- June 1 Monday. Class Day.
- June 2 Tuesday. Conferring of degrees.
- June 10 Wednesday. Spring Session ends.
- June 15 Monday. Entrance examinations begin.
- June 20 Tuesday. Registration in Summer Session begins.
- July 3 Friday. Last day of registration for students desiring full credit.
- July 6 Monday. Thirty-second Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.

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- August 1 Saturday. Last day for filing applications for the degrees of Master of Science and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December.
Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 14 Friday. Thirty-second Summer Session ends.
- September 7 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 14 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE WINTER SESSION

- The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.
- September 16 Wednesday, and September 17, Thursday. Placement examinations required of freshmen admitted to Columbia College.
- September 16 Wednesday, to October 3, Saturday. For University Extension students desiring credit.
- September 18 Friday, to September 23, Wednesday. For students in the School of Law, the School of Business (excepting graduate students), and Barnard College.
- September 19 Saturday, to September 23, Wednesday. For students in Education and Practical Arts and the School of Journalism (excepting graduate students).
- September 21 Monday, to September 23, Wednesday. For students in Columbia College, Seth Low Junior College, the School of Engineering, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 21 Monday, to September 26, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business, and Journalism.
-
- September 23 Wednesday. Winter Session, 178th year begins.
- September 24 Thursday. Classes begin.



9.1

Columbia University

BULLETIN OF INFORMATION

Thirty-first Series No. 27

April 4, 1931

ANNOUNCEMENT OF THE

SCHOOL OF DENTAL AND ORAL SURGERY

FOR THE WINTER AND SPRING SESSIONS

1931-1932

Series
C

1931/32



630 WEST 168TH STREET
NEW YORK

Columbia University Bulletin of Information

Thirty-first Series, No. 27

April 4, 1931

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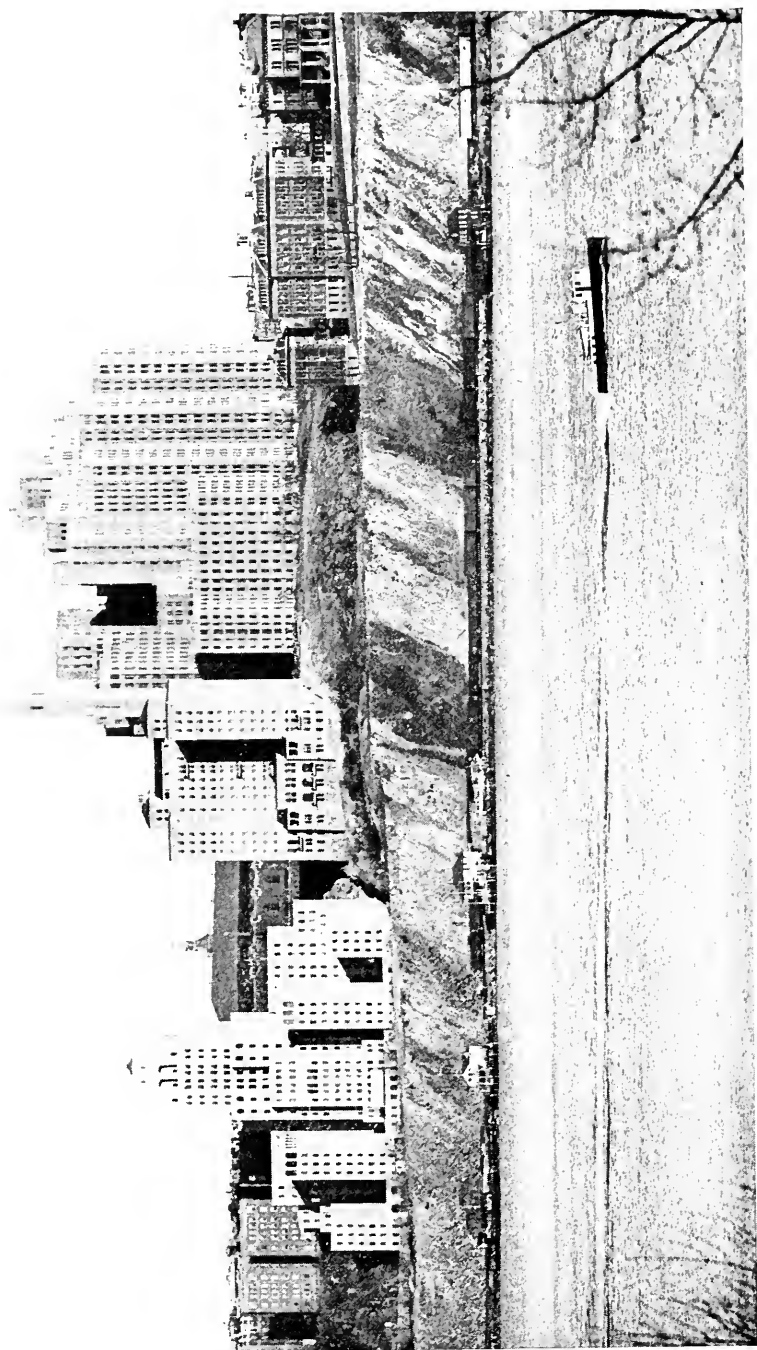
1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, Directory Number, and the Announcements of the several Colleges and Schools and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P. 5,500—1931.

COMMUNICATIONS

All communications regarding the School of Dentistry, application for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 630 West 168th Street; telephone Billings 5-6000.





MEDICAL CENTER, VIEW FROM THE WEST

Columbia University

in the City of New York

ANNOUNCEMENT OF THE

SCHOOL OF DENTAL AND ORAL SURGERY

FOR THE WINTER AND SPRING SESSIONS

1931-1932



630 WEST 168TH STREET
NEW YORK

THE SCHOOL OF DENTISTRY

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President of the University

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D.M.D., Minnesota, 1894; A.B., 1910; M.D. and C.M., Hamline, 1895; Sc.D., Columbia, 1929.
Special Consultant (Dentistry), Presbyterian Hospital Staff; Member of the Dental Advisory
Board Department of Health, New York City.

LEUMAN MAURICE WAUGH *Associate Dean and Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1922.
Consulting Orthodontist, New York Orthopedic Dispensary and Hospital; Member Dental
Advisory Board, Department of Health, New York City.

FACULTY

ADOLPH BERGER *William Carr Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Attending Dental Surgeon Presbyterian Hospital;
Oral Surgeon to Hospital for Joint Diseases.

CHARLES FRANCIS BODECKER *Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1925.

HANS THACHER CLARKE *Professor of Biological Chemistry*
D.Sc., London, 1913.
Consultant in Biological Chemistry, Presbyterian Hospital.

WILLIAM DARRACH *Dean Emeritus of the College of Physicians
and Surgeons in Residence*
A.B., Yale, 1897; A.M. (Hon.), 1920; A.M., Columbia, 1901; M.D., 1901; Sc.D., 1929; LL.D.,
St. Andrew's, 1928; F.A.C.S.
Special Consultant (Surgery), Presbyterian Hospital; Consulting Surgeon, Sloane, Green-
wich, and Beekman Street Hospitals.

SAMUEL RANDALL DETWILER *Professor of Anatomy*
Ph.B., Yale, 1914; A.M., 1916; Ph.D., 1918.
Consultant in Anatomy, Presbyterian Hospital.

HENRY SAGE DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York
University, 1915; F.A.C.S., 1924.
Attending Oral Surgeon, Vanderbilt Clinic, College of Physicians and Surgeons; New York
Hospital; Attending Oral Surgeon, Presbyterian Hospital; Fifth Avenue Hospital; Knicker-
bocker Hospital; Nassau Hospital; Broad Street Hospital; Vassar Hospital; Consulting
Oral Surgeon, Manhattan Eye, Ear, and Throat Hospital; St. Luke's Hospital; Roosevelt
Hospital and St. Vincent's Hospital; Attending Oral Surgeon, Babies' Hospital; Attending
Oral Surgeon, Sloane Hospital; Consulting Oral Surgeon, Post-Graduate Hospital.

WILLIAM BAILEY DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1895, F.A.C.D., 1928.
Attending Dental Surgeon, Presbyterian Hospital; Director of the Department of Dentistry,
New York Orthopedic Dispensary and Hospital.

- FREDERICK PARKER GAY *Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901.
Commander of the Order of the Crown of Belgium; Bacteriologist, Presbyterian Hospital.
- HENRY WEBSTER GILLET *Professor of Dentistry*
D.M.D., Harvard, 1885.
Member Dental Advisory Board, Department of Health, New York City.
- LEROY LEO HARTMAN *Professor of Dentistry*
D.D.S., Northwestern, 1913.
- ANNA VERONICA HUGHES *Professor of Dentistry and in Charge
of Courses in Oral Hygiene*
D.M.D., Tufts, 1909.
Attending Dental Surgeon, Presbyterian Hospital; Member Dental Advisory Board, Department of Health, New York City.
- JAMES WESLEY JOBLING *Professor of Pathology*
M.D., Lincoln Memorial, 1896; M.D., Tennessee Medical, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- HAROLD JUDSON LEONARD *Professor of Dentistry*
D.D.S., Minnesota, 1912; A.B., 1915.
Secretary of the Faculty; Attending Dental Surgeon, Presbyterian Hospital.
- CHARLES CHRISTIAN LIEB *Hosack Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
Consultant, Pharmacology, Presbyterian Hospital.
- WILLARD COLE RAPPLEYE *Dean of the College of Physicians and Surgeons*
A.B., Illinois, 1915; A.M., Yale, 1922; M.D., Harvard, 1918.
- ARTHUR TAYLOR ROWE *Professor of Dentistry*
D.D.S., Minnesota, 1906.
Attending Dental Surgeon, Presbyterian Hospital.
- WILLIAM DWIGHT TRACY *Professor of Dentistry*
D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- HORATIO BURT WILLIAMS *Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905; Sc.D., 1925.
Consultant, Physiology, Presbyterian Hospital.

OTHER OFFICERS OF INSTRUCTION

- EDMUND APPLEBAUM *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1922.
- HENRY ULYSSES BARBER, JR. *Instructor in Dentistry*
D.D.S., Pennsylvania, 1916.
- HENRY ARTHUR BARTELS *Instructor in Dentistry*
B.S., Rhode Island State, 1917; B.S., Columbia, 1925; D.D.S., 1927.

- WALTER REGINALD BEAVEN *Instructor in Pharmacology*
D.D.S., Columbia, 1926.
- SAMUEL BIRENBACH *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1917.
- RICHARD M. BRICKNER *Instructor in Neurology*
B.S., Columbia, 1921; M.D., 1923.
- NORTON S. BROWN *Assistant in Medicine*
A.B., Stanford, 1925; M.D., 1929.
- MAURICE BUCHBINDER *Assistant Professor of Dentistry*
B.S., College of the City of New York, 1917; D.D.S., Columbia, 1925.
- LESTER RICHARD CAHN *Assistant Professor of Dentistry*
D.D.S., New York College of Dentistry, 1917.
- RUSSELL LEGRAND CARPENTER *Instructor in Anatomy*
B.S., Tufts, 1924; Ph.D., Harvard, 1928.
- C. STERLING CONOVER *Instructor in Dentistry*
D.D.S., Pennsylvania, 1918.
- WILLIAM HOPKINS CRAWFORD *Associate Professor of Dentistry*
D.D.S., Minnesota, 1923.
- MOSES DIAMOND *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1914.
- LEWIS DICKAR *Instructor in Pathology*
B.S., College of the City of New York, 1926; M.D., Yale, 1930.
- ADOLPH ELWYN *Assistant Professor of Neurology*
B.S., Columbia, 1915; A.M., 1917.
- HAVEN EMERSON *Professor of Public Health Administration*
A.B., Harvard, 1896; A.M., Columbia, 1899; M.D., 1899.
- JOSEPH OCTAVIUS FOURNIER *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1913.
- LEO JOSEPH HAHN *Instructor in Physiology*
Ph.D., Yale, 1914; M.D., 1918.
- ISADOR HIRSCHFELD *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1902.
Attending Dental Surgeon, Presbyterian Hospital; Associate Oral and Dental Surgeon, New York Hospital for Joint Diseases; Chief, Periodontia Department, Beth Israel Hospital.
- HOUGHTON HOLLIDAY *Assistant Professor of Dentistry*
A.B., Minnesota, 1915; D.D.S., 1917.
- KATHERINE FLORENCE HOLLIS *Instructor in Dentistry*
D.H., Columbia, 1921.

- ALEITA HOPPING *Assistant Professor of Physiology*
A.B., Hunter, 1912; Ph.D., Columbia, 1923.
- FREDERICK HOLLIS HOWARD *Assistant Professor of Physiology*
M.D., Pennsylvania, 1898; A.B., Williams, 1926.
- EARL BANKS HOYT *Assistant Professor of Dentistry*
D.D.S., Pennsylvania, 1918.
- MARY CAROLINE HRUBETZ *Instructor in Physiology and Pharmacology*
A.B., California, 1920; A.M., Columbia, 1928.
- MELVILLE HUMBERT *Instructor in Pharmacology and Dentistry*
A.B., Columbia, 1923; B.S., 1924; D.D.S., 1926.
- MAXWELL KARSHAN *Associate Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; A.M., Columbia, 1920; Ph.D., 1925.
- WILYJON MEDLOCK KENNAN *Assistant in Biological Chemistry*
B.S., North Carolina College for Women, 1920; M.S., Columbia, 1926; A.M., 1928.
- GEORGE HUGHES KIRBY *Professor of Psychiatry*
B.S., North Carolina, 1896; M.D., Long Island College Hospital, 1899.
Director, New York State Psychiatric Institute and Hospital; Consulting Psychiatrist, U. S. Veteran's Hospital No. 81 and Children's Hospital.
- FRANCES KRASNOW *Instructor in Biological Chemistry*
B.S., A.M., Columbia, 1917, Ph.D., 1922.
- FRED HENRY KUVER *Instructor in Dentistry*
D.D.S., Columbia, 1926.
- CHARLES I. LAMBERT *Professor of Psychiatric Education in Teachers College*
B.S., Iowa, 1901; M.S. and M.D., 1903.
Attending Psychiatrist, Vanderbilt Clinic; Assistant Consultant, Presbyterian Hospital.
- JESSICA PENDLETON LELAND *Assistant in Biological Chemistry*
B.S., Simmons, 1919; A.M., Columbia, 1928.
- GEORGE FRANK LINDIG *Instructor in Dentistry*
D.D.S., Minnesota, 1924.
- RICHARD WARNER LINTON *Assistant Professor of Bacteriology*
A.B., Harvard, 1922; A.M., Columbia, 1926; Ph.D., 1929.
- JOSEPHINE EMILY LUHAN *Assistant Professor of Dentistry*
D.D.S., New York College of Dental and Oral Surgery, 1912.
- L. VOSBURGH LYONS *Instructor in Neurology*
M.D., Columbia, 1917.
- EWING CLEVELAND McBEATH *Associate Professor of Dentistry*
D.D.S., Minnesota, 1910; B.S., 1919; B.M., 1920; M.D., 1921.

- FRANCIS STEPHEN McCAFFREY *Assistant Professor of Dentistry*
 B.S., Fordham, 1911; D.D.S., New York College of Dentistry, 1915.
 Visiting Oral Surgeon, St. Vincent's Hospital; Visiting Dental Surgeon, Fordham Hospital;
 Attending Dental Surgeon, Presbyterian Hospital; Junior Oral Surgeon, Manhattan Eye,
 Ear, and Throat Hospital; Assistant Attending Oral Surgeon, Vanderbilt Clinic; Consulting
 Oral Surgeon, Manhattan Hospital.
- DAVID DODGE MOORE *Instructor in Medicine*
 A.B., Princeton, 1921; M.D., Columbia, 1925.
- EDWARD GERALD MURPHY *Instructor in Dentistry*
 D.D.S., Michigan, 1924; P.G., Pennsylvania, 1925.
- EDWIN J. NESTLER *Assistant Professor of Dentistry*
 D.D.S., Pennsylvania, 1911.
- WALTER WALKER PALMER *Bard Professor of the Practice of Medicine*
 B.S., Amherst, 1905; Sc.D., 1922; M.D., Harvard, 1910; Sc.D., Columbia, 1929.
 Director of Medical Service, Presbyterian Hospital; Consulting Physician, Sloane Hospital.
- DOUGLAS BURNETT PARKER *Associate Professor of Dentistry*
 M.D., Long Island College Hospital, 1912; D.D.S., Pennsylvania, 1914. Assistant Attending
 Oral Surgeon, Presbyterian Hospital; Instructor in Surgery, College of Physicians and
 Surgeons; Associate Surgeon, Long Island College Hospital; Instructor in Surgery, Medical
 School, Long Island College Hospital; Consultant in Oral Surgery, Swedish Hospital,
 Vassar Hospital.
- FRANK ELMER RIANs *Instructor in Dentistry*
 D.D.S., Buffalo, 1905.
- MAURICE NATHANIEL RICHTER *Assistant Professor of Pathology*
 B.S., Columbia, 1919; M.D., 1921.
 Assistant Visiting Pathologist, Presbyterian Hospital.
- WILLIAM MITCHELL ROGERS *Instructor in Anatomy*
 B.S., Georgia, 1921; Ph.D., Cornell, 1926.
- BENJAMIN SALZER *Instructor in Neurology*
 M.D., Long Island College Hospital, 1909.
- ERNEST LYMAN SCOTT *Associate Professor of Physiology*
 B.S., Ohio Wesleyan, 1902; M.S., Chicago, 1911; Ph.D., Columbia, 1914.
- JOSEPH SCHROFF *Associate Professor of Dentistry*
 B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
 Attending Dental Surgeon, Presbyterian Hospital; Oral Surgeon, O.P.D., Mt. Sinai Hospital;
 Oral Surgeon, German Polyclinic; Consulting Oral Surgeon, Jewish Memorial Hospital.
- AURA EDWARD SEVERINGHAUS *Assistant Professor of Anatomy*
 B.S., Columbia, 1916; A.M., 1920; Ph.D., 1929.
- HAROLD SKELTON *Instructor in Physiology*
 A.B., Nebraska, 1923; M.Sc., Minnesota, 1925.
- GILBERT PERCIVAL SMITH *Instructor in Dentistry*
 D.D.S., Minnesota, 1927.

- BYRON STOOKEY *Associate Professor of Neurological Surgery*
A.B., Southern California, 1908; A.M., Harvard, 1909; M.D., 1913.
Associate Surgeon, New York Neurological Institute; Associate Professor Neurosurgery,
New York Post-Graduate Medical School and Hospital; Assistant Visiting Surgeon,
Bellevue; Assistant Surgeon in charge of Neurological Surgery, City Hospital; Assistant
Attending Neurological Surgeon, Memorial Hospital; Consulting Neurological Surgeon.
Vanderbilt Clinic, Beekman Street Hospital, Willard Parker Hospital and Associate
Consulting Neurological Surgeon, St. Luke's Hospital.
- OLIVER SMITH STRONG *Professor of Neurology and Neurohistology*
A.B., Princeton, 1886; A.M., Columbia, 1892; Ph.D., 1896.
Consultant (Neuropathology), Department of Neurology, Vanderbilt Clinic.
- MARTIN CHARLES TRACY *Assistant Professor of Dentistry*
D.M.D., Tufts, 1900.
Attending Dental Surgeon, Presbyterian Hospital.
- JOSEPH VICTOR *Instructor in Pathology*
B.S., College of the City of New York, 1926; M.D., Rochester, 1930.
Interne in Presbyterian Hospital.
- GENEVA HASTINGS WALLS *Instructor in Dentistry*
D.H., Forsyth Dental Infirmary, 1917.
- SIGMUND L. WILENS *Instructor in Pathology*
B.S., Yale, 1926; M.D., 1929.
Assistant Resident Pathologist, Presbyterian Hospital.
- CORA SENNER WINKIN *Instructor in Physiology*
Ph.D., Columbia, 1922.
- MORRIS A. ZIMMER *Instructor in Dentistry*
D.D.S., New York University, 1918.

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- | | |
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D.Sc.*Assistant Visiting Oral Surgeon*

DOUGLAS PARKER, M.D., D.D.S.

Assistant Attending Dental Surgeon

ALBIN R. SEIDEL, D.M.D.

*Attending Dental Surgeons*ADOLPH BERGER, D.D.S.
WILLIAM B. DUNNING, D.D.S.
✓ ISADOR HIRSCHFELD, D.D.S.
HOUGHTON HOLLIDAY, D.D.S.
ANNA V. HUGHES, D.M.D.
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FRANCIS S. McCaffrey, B.S., D.D.S.
JOSEPH SCHROFF, D.D.S., M.D.
MARTIN C. TRACY, D.M.D.*Assistant Dental Surgeons*HOWARD T. APPLEGATE, D.D.S.
WILLIAM W. BAADE, D.D.S.
ROSE COHEN, D.D.S.
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WILLIAM MURRAY, D.D.S.
JOHN F. RALSTON, D.D.S.
CHARLES H. TIMMS, D.D.S.*Dental Internes**Visiting Oral Surgeon*

HENRY S. DUNNING, M.D., D.D.S.

ROBERT E. ANDERSON, B.S., D.D.S.
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COMMITTEES

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KARSHAN, LIEB, RICHTER, and ROWE*Instrument*Professor ROWE (*Chairman*), Professors HARTMAN, HIRSCHFELD, and HUGHES*Museum*Professor GILLET (*Chairman*), Professors CAHN, DIAMOND, H. S. DUNNING,
JOBING, and ZISKIN*Library Committee*

Dean OWRE, Dental School Representative

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Professor DIAMOND (*Chairman*), Professors DETWILER and KARSHAN

Sophomore Class—Faculty

Professor BODECKER (*Chairman*), Professors BUCHBINDER, CRAWFORD, HUGHES, LINTON, and WILLIAMS

Junior Class—Faculty

Professor BERGER (*Chairman*), Professors CAHN, HARTMAN, and HOYT

Senior Class—Faculty

Professor ROWE (*Chairman*), Professors HARTMAN, McBEATH, and McCaffrey

Committee on Student Affairs

Professor ROWE (*Chairman*), Professors BODECKER, CRAWFORD, HARTMAN, HOLLIDAY, and LEONARD

The Dean is a member *ex officio* of all committees

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Dr. JAMES W. JOBLING
Dr. MAXWELL KARSHAN
Dr. HAROLD J. LEONARD
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Dr. PHILIP E. SMITH
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ROGER HOWSON, A.M. *Librarian*
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CHARLES S. DANIELSON *Bursar of the University*
HENRY LEE NORRIS, M.E. *Director of Works*

DAVID M. UPDIKE, M.E.	<i>Superintendent of Buildings and Grounds</i>
REV. RAYMOND C. KNOX, S.T.D.	<i>Chaplain of the University</i>
EDWARD S. ELLIOTT, M.D.	<i>Medical Director of the Gymnasium</i>
WILLIAM H. MCCASTLINE, M.D.	<i>University Medical Officer</i>
HERBERT B. HOWE, A.M.	<i>Director of Earl Hall</i>
NICHOLAS McD. MCKNIGHT, A.B.	<i>Secretary of Appointments</i>
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FREDERICK MILLER, C.E.	<i>Assistant Superintendent of Buildings and Grounds</i>
CHARLES M. FORD, M.D.	<i>Assistant to the Registrar</i>

SCHOOL OF DENTAL AND ORAL SURGERY

GENERAL INFORMATION

HISTORICAL STATEMENT

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the School became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large buildings, at 302-306 East 35th Street, and 309-315 East 34th Street in which the school was housed up to the time of moving into the Medical Center.

In September, 1928, the School was moved to the Columbia University-Presbyterian Hospital Medical Center where it occupies the three upper floors of the Vanderbilt Clinic wing, giving a net floor area of 40,000 square feet. The College of Physicians and Surgeons in which the fundamental medical science subjects are given adjoins it, the halls of the two being continuous. In adjacent wings, the halls of which are continuous with those of the School, the wards and out-patient departments of the Presbyterian and associated hospitals are located, thus giving the closest possible contact and association with all branches of health service. The Dental School Clinic includes as one of its functions the dental care of the patients of the Medical Center hospitals.

It is the purpose of the Faculty to maintain dental education in this school on the same footing as that of other branches of health service. Two years of college work including certain specified subjects are required for admission and of those who have fulfilled the requirements a careful selection is made on the basis of their fitness for the practice of dentistry. The course of dentistry covers four years leading to the degree of Doctor of Dental Surgery. The first two years of the curriculum are taken in the fundamental departments of the College of Physicians and Surgeons. The science courses of these two years are designed to meet the state requirements of the first two years of the medical curriculum. Standards of scholarship are intended to be the same throughout.

STUDENTS

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid.

No student registered in any school or college of the University may at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

GRADUATION

Diplomas are issued only at Commencement and in February and October, (for A.M. candidates at Commencement and in February and December, or, in the case of the Ph.D. degree, upon the completion of the requirements).

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years will be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean or Director of the school or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

Letters requesting more detailed information than is contained in this Announcement, and all correspondence regarding admission, should be addressed to the Dean, School of Dental and Oral Surgery, 630 West 168th Street.

LIBRARY

A combined medical-dental library with spacious reading room containing approximately 50,000 volumes and about the same number of pamphlets occupies a part of three lower stories of the main administration building of the Medical Center and is open to students from 9 a. m. to 10 p. m., on week days.

This library has been formed through the consolidation of departmental libraries to serve more adequately the needs of students, internes and teachers of the combined schools and Presbyterian Hospital Unit. It has a seating capacity for 250 readers.

The periodical room on the upper floor is especially equipped to foster and encourage research work. Here are received 300 current journals, and nearby will be shelved the bound volumes of the most important journals covering a period of approximately ten years. In addition, the more important reference works, the systems of medicine and surgery, some of the German *Handbücher* and other bibliographical tools will be available for intensive research work.

The book collections are systematically arranged under the Library of Congress classification, and the serials shelved in a strictly alphabetical order, so as to insure quick service and prompt delivery over the loan desk.

The dictionary catalogue in the lobby, with its author, subject and title entries, should be freely consulted as a guide and index to the subject matter in the combined collections of the library.

UNIVERSITY PRIVILEGES

As the School of Dental and Oral Surgery is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of other departments of the University. They may reside in the University dormitories at Morningside Heights, and are eligible to membership in the various social and other organizations of the student body.

University Libraries. The libraries on Morningside Heights are open to all students of dentistry, and books may be borrowed for home use. They include collections on anatomy, biochemistry, public health, nursing, and other subjects related to dentistry, and supplement the special collections available in the College of Physicians and Surgeons, and in the New York Academy of Medicine, Fifth Avenue at 103d Street. The library of the College of Pharmacy, 115 West 68th Street, is also open to students in the School of Dentistry.

University Gymnasium. The Gymnasium is situated on Morningside Heights, and is open daily during the academic year, except on Sundays and legal holidays, from 8:30 a. m. to 7 p. m. (Saturdays, 5 p. m.). It is closed for the entire day only on Thanksgiving, Christmas, New Year's, and Good Friday; on all other holidays it is open from 2 to 6 p. m. Instructors are on the floor at all times when the Gymnasium is open. Students of the School of Dentistry may enjoy its privileges and have the use of the Gymnasium and baths and a private locker. The student is entitled also to a physical examination by the University Medical

Officer, who, on the basis of such an examination, will give advice as to the kind and amount of exercise best adapted to the needs of each man. The Gymnasium is large, thoroughly equipped, and under the immediate supervision of the University Medical Officer, a professor in the Department of Physical Education. The Medical Officer is assisted by a corps of able instructors.

Employment. The Appointments Office located in Earl Hall is the central placement department of the University through which students and graduates are referred to suitable positions.

It is the function of the Appointments Office to secure for competent men and women students who need to work their way through the University, the opportunity to earn enough for their partial support. It is the experience of the office, however, that it is practically impossible for dental students to undertake outside part-time work during the academic year without seriously jeopardizing their school work and their health. The office consequently does not encourage students of the School of Dental and Oral Surgery to seek employment during the academic year, although it assists competent men and women to secure suitable and remunerative work during the summer. In general the office advises students who are unable to pay the complete cost of attending the School to withdraw for a year in order to earn the money necessary to enable them to give undivided attention to their academic work.

MEDICAL ATTENDANCE

The University Medical Officer, Dr. W. H. McCastline, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, should be reported to him promptly. The Medical Officer and the members of his staff hold office hours daily in Earl Hall for the medical care of students and members of the staff.

RESIDENCE HALLS

There are four Residence Halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls for both men and women are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Intercollegiate Cosmopolitan Club, is maintained for men and women students from foreign lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Fees for the

academic year range from \$185 to \$325. Inquiries should be addressed to Committee on Admissions, International House, 500 Riverside Drive.

THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

KING'S CROWN HOTEL

The King's Crown, located at 420 West 116th Street, in close proximity to the University, provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and grillroom for all men students in John Jay Hall. In addition the University maintains the following dining rooms (cafeteria service): The Commons (men and women), University Hall; Barnard Hall Lunch Room (women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, West 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is available for student receptions and dances. The lower floor, entrance from Broadway, is occupied by the office of the University Medical Officer.

UNIVERSITY BOOKSTORE

The official University Bookstore is situated in the Journalism building, with entrances at the southeast corner of 116th Street and Broadway, and from South Field between Fernald Hall and Journalism. Books and other supplies are sold at discounts from the usual prices. The store is open on week-days, Saturdays included, from 8:30 a. m. to 8 p. m.; during the first days of each session, until 10 p. m. The store maintains a theater and concert ticket service, a travel bureau, telegraph service, and other services, with substantial savings to Columbia students.

REQUIREMENTS FOR ADMISSION

ADMISSION TO FIRST YEAR OF THE SCHOOL OF DENTAL AND ORAL SURGERY

Eligibility. No definite information regarding eligibility can be given until the completed application blank has been filed by the applicant at the Office of the Dean.

Application. It is desirable that candidates make application before June 1, as on or about June 15 the Committee on Admissions will act upon all applications received up to that date. Application blanks will be furnished by the Dean's Office of the School of Dental and Oral Surgery.

The minimum requirements which will be accepted for admission in September, 1931, are attendance for two full years of at least seven months each at an acceptable college of arts and sciences, comprising 72 points as rated by Columbia College. The courses taken at college must include the following:

1 year physics, aggregating 8 semester hours or more, or one year aggregating 6 semester hours (including laboratory work) based on college entrance physics.

1 year inorganic chemistry, based on college entrance chemistry, the equivalent of 6 to 10 semester hours.

$\frac{1}{2}$ year qualitative or quantitative analysis, not less than 4 semester hours.

$\frac{1}{2}$ year organic chemistry, not less than 4 semester hours.

1 year biology, aggregating 6 semester hours or more.

2 years English, approximately 10 semester hours total.

2 years French or 2 years German. This requirement comprises one year of advanced French or German which has been preceded either by a two years' study of the same language in high school, or by one year's study of the same language in college. It aggregates 12 to 14 semester hours of either French or German. No other language can be substituted.

Beginning September, 1932, a change in predental requirements will become effective for applicants intending to enter the first year class at that time. The minimum requirements which will be accepted for admission are attendance for three full years of at least seven months each at an acceptable college of arts and sciences, comprising 94 points as rated by Columbia College. The following college courses must be taken:

English 1 year.

French or German, a reading knowledge of.

Physics 1 year, aggregating 8 semester hours or more. A credit of 6 semester hours at college, based on college entrance physics, will be accepted.

Zoölogy, 1 year, aggregating 6 semester hours or more.

Inorganic chemistry 1 year, including some qualitative analysis.

Quantitative analysis $\frac{1}{2}$ year or the equivalent.

Organic chemistry 1 year or the equivalent.

Aside from filling the predental requirement, cultural rather than purely scientific courses are recommended to be taken.

Shop practice and technical drawing are earnestly recommended to predental students as two of their elective subjects. These subjects give early training

in muscle and eye coördination so necessary in dentistry and so difficult to attain in later years.

Note: A point or semester hour is the equivalent of one hour of lecture or recitation or of two hours of laboratory work per week, per semester. Suitable laboratory work must be included in each of the courses in science.

The following credentials must be submitted or mailed to the Dean's office, School of Dental and Oral Surgery.

1. Application for admission (blank furnished by this school on request). Transcript of courses taken, or to be taken, must be entered on this blank.

2. An official transcript of college record, showing entrance credits, courses taken, and grades received. This is not required until the courses offered for admission are completed, unless specific request for it is previously made.

3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must show only head and neck.)

The following must be mailed to New York State Department of Education, Albany, New York.

1. An application for qualifying certificate (blank furnished by the School or New York State Department of Education, Albany, New York). This is required by the New York State Department of Education and is forwarded to them with the one dollar fee in requesting issuance of dental student qualifying certificate for the applicant.

2. Official transcripts of high school records must be furnished *only* in case the college record *fails* to show the college entrance credits.

3. In addition to the above credentials the applicant must furnish a fee of one dollar (check or money order drawn to order of the University of the State of New York, and forwarded with application for qualifying certificate) covering cost of issuance of a dental student qualifying certificate.

No letters of recommendation are desired unless asked for.

A dental student qualifying certificate, which is the official evidence of the fulfillment of the requirements of the state, must be authorized before the student begins the first annual dental course counting towards a dental degree. This precludes the admission of the conditioned students.

Owing to the limited number of students who can be accommodated, completion of the requirements for entrance does not guarantee admission. The entire pre-dental record of each student is carefully examined by the Committee on Admissions in order that those who are adjudged most capable of meeting the exacting demands of the course and of the profession of dentistry may be selected.

In order to make the best selection from among the candidates who are eligible for admission all applicants who are eligible will be requested to report at the Dean's office for a personal interview some time prior to the final action of the Committee on Admissions. Those who remain on the eligible list after a personal interview will be given an examination as to mechanical ability and manual dexterity. This test will be given at various times during the year. It will consist of exercises in mechanical and free hand drawing, metal filing, and moulding in plastic material, and will be conducted by the technic teachers in the School.

Fee on Admission: A fee of \$10 is payable by the applicant within ten days of his receipt of notice that he has been accepted for admission. A check to the order of Columbia University should be returned by the accepted applicant with notice that he intends to matriculate. If the applicant registers within the prescribed registration dates in September, this fee will be credited as the University fee. If he fails to register the fee lapses and will be used by the University to meet the cost of its administrative and overhead charges in caring for applicants who do not finally register.

Admission of Foreign Students. The credentials submitted must contain evidence of the satisfactory completion of the equivalent to the stated entrance requirements.

All applicants for a dental student qualifying certificate on credentials from foreign countries (other than those in which English is the language of the people) must pass a special examination in English. This examination is conducted by the State Department of Education. Information regarding this and the dates on which it is given can be obtained from the New York State Department of Education, Albany, New York.

Evidence of authenticity and the right of possession as well as the original credentials and authenticated translation of the same are required by the State Department of Education and by this office.

If applicant resides in a foreign country, the credentials as outlined below should be prepared and submitted to the Dean's office, 630 West 168th Street, New York City.

If applicant resides in the United States, the credentials should be sent direct to the New York State Department of Education, Albany, N. Y. Only one copy of affidavit on "Form F" is required.

1. Original credentials from foreign schools.
2. Translations of credentials certified to be correct by a consul or notary public.
3. Affidavit fully describing the applicant's education made out (in duplicate) on blanks known as "Form F."

In addition to above credentials the applicant must furnish a fee of one dollar by check or money order drawn to order of University of the State of New York and sent with application for qualifying certificate, covering cost of issuance of a dental student qualifying certificate.

The following credentials must be submitted at the Dean's Office, 630 West 168th Street, after a dental student qualifying certificate has been authorized.

1. Application for admission (blank furnished by this school on request).
2. Letter from the New York State Department of Education to the applicant certifying eligibility for dental student qualifying certificate.
3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must be head and neck only.)

Applicants may be required to submit to examination at the pleasure of the Faculty.

Admission of Foreign Students to Advanced Standing. Foreign students applying for admission to advanced standing must comply with the above requirements,

and must, in addition to the above noted credentials, submit transcripts and translations of their dental school work, and a letter from the New York State Department of Education certifying eligibility for admission to advanced standing. They will also be required to submit to examination at the pleasure of the Faculty.

COMBINED COURSES

Combined Courses with Columbia College. Upon receiving 94 points credit, 64 of which must be for work in Columbia College, including all of the work prescribed for the degree in Columbia College, a student may take studies in the first year of the School of Dental and Oral Surgery, provided he can satisfy the stated requirements and is accepted for admission therein, and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work.

No course may be counted toward a professional degree and at the same time be included among those which go to make up the 94 points referred to above.

Combined Course in Dentistry and Medicine. Under the new curriculum the first two years of dentistry include courses in anatomy, physiology, chemistry, bacteriology, pathology, and pharmacology which comply with the special requirements of the first two years of the medical curriculum as outlined by the New York State Department of Education. Students desiring to complete the medical curriculum may be admitted to the third year of medical colleges under the usual conditions of transfer and selection which obtain in each college. These courses are not, however, entirely equivalent to those required in the first two years of the College of Physicians and Surgeons of Columbia University, and students desiring to transfer to this medical school are not automatically granted advanced standing for the full two years, but must submit to examination by the departments of the third year teaching and can be admitted only as there are vacancies in the class.

Admission to Advanced Standing. Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their school of previous residence. Provided they are eligible for the dental student qualifying certificate required by the New York State Department of Education and can submit evidence of the satisfactory completion of the entrance requirements of this school, candidates who have completed, without condition, one or two years of study in a dental school registered in the state of New York including courses equivalent to those given at this school are eligible to apply for admission to the second or third years respectively.

Owing to the lack of uniformity in the arrangement of the first and second year curricula in the various dental schools a transfer can usually be accomplished with the least adjustment at the end of the second year.

The following credentials must be submitted at the Dean's office, 630 West 168th Street:

1. Application for admission (blank provided by this school on request) completely filled out.
2. Official transcript of college record including college entrance credits should be sent in with application blank.

3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must be head and neck only.)

4. A properly executed oath of allegiance and application for qualifying certificate (blank provided by this school on request).

5. Official transcript of dental school record must be submitted *on completion* of courses taken.

6. A properly executed advanced standing blank, required by the state of New York (blank furnished by this school) must be executed by proper official of dental school of previous residence *on completion* of college years certified.

7. In addition to above credentials applicant must furnish a fee of one dollar, check or money order drawn to order of University of the State of New York, covering cost of issuance of the dental student qualifying certificate.

Admission to the fourth year is by special permission of the Committee on Administration and is limited to students who have the predental qualifications and have the degree of Doctor of Dental Surgery from an acceptable dental school. Applicants for admission to the fourth year must furnish these credentials in addition to the others required for advanced standing.

ADMISSION OF SPECIAL STUDENTS

Students who desire to pursue a special course without graduation may matriculate as special students, but only after approval by the head of the department conducting the course and by the Dean. Such special work will not count in any way as part of the course required of candidates for the degree of Doctor of Dental Surgery.

SUMMER SESSION

In 1931, from June 3 to August 25, a Summer Session of twelve weeks will be offered to the groups who attended similar courses in the summers of 1929 and 1930, as a continuation of the regular work.

The tuition fee for this Summer Session will be one-third of the regular fee for the academic year plus the regular University fee of \$10 and a deposit fee of \$10. Registration and payment of fees should be completed not later than the first day of the Summer Session.

The optional forty-four week plan, permitting of the completion of the prescribed course in three calendar years, will not be offered to the class entering in 1930 nor to future classes.

During the above period, an optional course in operative and prosthetic clinical practice, without credit, will be offered to men who have completed the required work of the third year. The course must be continued throughout the entire Summer Session. There will be no fee for this optional course.

COURSES IN ORAL HYGIENE

The courses in oral hygiene offered by the School of Dental and Oral Surgery are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York,

the completion of at least four years of high school work, and the attainment of at least eighteen years of age. For full information address Professor ANNA V. HUGHES, at 630 West 168th Street.

COURSES FOR GRADUATES

Several types of instruction for graduates are available from the short intensive clinical course of a few days to the protracted graduate courses leading to the degrees of Master of Arts or Doctor of Philosophy.

The Faculty is always willing at the request of practitioners to conduct through the Extension Division short courses in any subjects in dentistry that may be desired, providing it can be done without interference with the regular routine work of the School. It is the business of the Extension Division to arrange such courses to suit the convenience in time and place of those who take and those who give the courses. The fees for such special short courses are on the basis of cost.

It is usually possible in each division of the School to accommodate two or three dentists who desire to come into the School for study and clinical practice under the regular teaching staff. The candidate for such work must be an ethical dentist recommended by his local dental society. If he desires to register for work he applies to the Dean who, in conference with the teachers concerned, passes on the application. If acceptable the candidate registers and pays a tuition fee which is proportional to the regular undergraduate year fee as the amount of work registered for is to an undergraduate year of work. Any amount of work over a minimum equaling five trimester credits may be arranged for. Such work does not lead to credit or toward a degree or certificate.

For full information address Office of the Dean, School of Dental and Oral Surgery, 630 West 168th Street, New York, N. Y.

CERTIFICATE OF PROFICIENCY

The School of Dental and Oral Surgery is authorized to grant a Certificate of Proficiency in Dentistry or in a special branch of dentistry selected by the candidate and approved by the School of Dental and Oral Surgery to students who have complied with the requirements stated below.

The requirements for admission shall be graduation from the School of Dental and Oral Surgery or from another acceptable school of dentistry in the United States or in a foreign country and the applicant must be a member in good standing of his national dental association. The membership requirement does not apply to students who enter within a year of graduation.

The course of study for the Certificate of Proficiency shall include not less than thirty-two points (forty-eight trimester credits) of special work in the clinical branches of dentistry not leading toward a Master's or Doctor's degree, approved by the Dean of the School of Dental and Oral Surgery.

The fee for the year's work leading to the Certificate of Proficiency is the same as for undergraduate work in the School.

Application blanks may be obtained from the office of the Dean, School of Dental and Oral Surgery, 630 West 168th Street. When application for registration is made, the candidate is passed upon by the Dean and the teachers concerned and, if accepted, registers in the regular manner.

By extension of the usual time required for qualification for the Master's or Doctor's degree it is possible to combine the work for the Certificate of Proficiency with that for the graduate degree.

COURSES IN ORTHODONTIA FOR GRADUATES

An organized twelve-month course has been given since 1927 to qualified graduates in dentistry who wish to prepare for specialization in orthodontia. Admission requirements include graduation from an acceptable school of dentistry, and membership in good standing in the national dental organization of the applicant's country. This membership requirement does not apply to those who enter within the year of graduation. The Certificate of Proficiency is awarded to those who satisfactorily complete the course. Applicants who satisfy the requirements of the Graduate Faculties of Columbia University may arrange to have the work for the Certificate of Proficiency combine with the work required for the Master's degree.

For special information see the Announcement of Advanced and Graduate Courses in Dentistry, which may be obtained from the Director of the Division of Orthodontia or the Dean, School of Dental and Oral Surgery, 630 West 168th Street, New York, N. Y.

GRADUATE COURSES

Graduation from acceptable dental schools under the present curriculum of four academic years preceded by two predental college years is accepted by the Graduate Faculties of Columbia University as qualification for admission. For information regarding the curricula leading to the Master of Arts or the Doctor of Philosophy degrees in these Faculties see the Graduate Announcement.

REGISTRATION

Before attending University courses, every student must present himself at the office of the Registrar, and file a registration blank giving such information as may be required. The periods set aside for registration in each session are stated in the Academic Calendar found at the end of this Announcement. Registration at a later date is permitted only on the written permission of the Dean, satisfactory cause for the delay having been shown.

FEES

The University Statutes provide that tuition fees, the University fee, and laboratory deposits are payable semiannually in advance. No reduction is made for late registration. Registration will not be complete until such fees are paid. Checks should be drawn to the order of Columbia University and presented in person or mailed to the Office of the Bursar. Payment of fees after the last day of registration (see Academic Calendar) imposes automatically the statutory charge of \$6.00 for this privilege. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

(a) University Fee

For all students (except those in University Extension and Summer Session), for each Winter or Spring Session or for any part thereof . . . \$10

*For students in University Extension exclusively, for a Winter or Spring Session or any part thereof, and for students in a Summer Session or any part thereof . . . \$7

(b) Tuition Fee

For all students, per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed . . . \$10

With the proviso that the minimum fee for a Winter or Spring Session in the case of a student enrolled for ten points or more in the School of Law shall be not less than \$150, and in the case of a student enrolled for the full course in the School of Medicine or in the School of Dental and Oral Surgery not less than \$250, and in the case of a student enrolled for the full course in Oral Hygiene not less than \$150.

(c) Fee for Application

For any degree . . . \$20

For any certificate . . . \$10

(d) Privileges

1. Late registration or late application for a degree or certificate or for deficiency or special examinations . . . \$6

2. Late application for entrance examinations . . . \$1

3. Deficiency and special examinations . . . \$3

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.

(e) Entrance Examinations—for each series . . . \$10

(f) Rebates

1. The University fee and the fee for application for any degree or certificate shall not be subject to rebate.

2. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fee shall be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a partial return of fees may be authorized by the Registrar.

(g) Student Activities Fee

For all male students matriculated in any School of the University in which the first degree is normally granted four years after admission to college, for each Winter or Spring Session, or any part thereof . . . \$10

One-half of the amount received in each session on account of this fee to be expended on the maintenance of athletic activities, and one-half to be expended on the maintenance of non-athletic activities of students in Columbia College, provided that all such expenditures shall be subject to the authority of the President.

Male students in the graduate and professional schools will be entitled to certain privileges on payment of the student activities fee of \$10, for each Winter or Spring Session or any part thereof.

*As the twelve-weeks' Summer Session in the School of Dental and Oral Surgery equals a full trimester, the University fee is \$10.

When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in a course, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals, beyond this allowance; and service in washing apparatus, or work by a mechanic. A deposit of \$25 will be required in the School of Dental and Oral Surgery each year to cover material and breakage in the laboratories; for each Summer Session, \$10.

Instruments. Each student is required to supply himself with a microscope of a satisfactory type and instruments as specified in the official instrument list. The purchase from the University of microscopes and instruments in original package outfits has been made compulsory, and unauthorized or incomplete equipment will not be accepted by the instructors. Dental engines are rented from the School at the rate of \$15 for the academic year, payable on registration.

Supplies. All technic material and regular supplies *must* be purchased from the University upon an order from the instructor. The students will not be allowed to purchase more than is required to complete a case. The quantity and quality are selected with a view to the best possible results and conservation of the students' best interests.

Lockers. Each student on entering will be required to supply himself with one combination lock as prescribed by the School. Locks are one dollar each.

ESTIMATED EXPENSES FOR ACADEMIC YEAR

Following is an itemized estimate of expenses of attendance in the School of Dental and Oral Surgery for a full academic year. The tuition, room, board, books, instruments, and laundry figures are based upon actual prevailing rates. The cost of clothes, travel, and incidentals is of course variable, depending upon the tastes and financial situation of the individual, but the figures quoted have been arrived at after a careful study of present conditions.

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$530	\$530
Room (36 weeks)	212	170
Board (36 weeks)	366	288
Books	40	28
Instruments (See Note)	120	100
Laundry	50	34
Additional expenses, including clothing, travel, charity, organizations, and sundries	300	200
	<hr/> \$1618	<hr/> \$1350

The total cost of instruments for the four-year course is from \$400 to \$480, an average yearly cost of \$100 to \$120. It should be noted that the instruments for the first two years cost from \$240 to \$300.

Room prices are based on rates in the University Residence Halls. Prices in the neighboring rooming houses are slightly higher.

Medical advice and treatment of minor ailments are rendered free of charge by the University Medical Officer.

Many students reduce their expenses by sending their laundry home weekly via parcel post.

EXAMINATIONS AND STANDING

Final examinations are held at the end of the course, and reexaminations for students with conditions are held during the week preceding the opening of the School in the fall.

The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory, reexamination required; Inc., incomplete, completed work must be submitted within the time limit set by the instructor. One reexamination will be allowed in a course graded F; if the examination is passed the grade will be a C.

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examination in all the subjects of the entire course.

PROMOTIONS

Promotion will be granted to such students as have received passing grades in all subjects.

A student who has failed in any one of his courses is not allowed to go on with his class until he has removed that failure to the satisfaction of the head of the department.

A student who has failed two courses in the first year may be allowed reexamination in the failed courses provided that the failures do not comprise any two out of the three following courses: gross anatomy, physiology, and biological chemistry.

A student who has failed in two courses of the second, third, or fourth years may be allowed reexamination in the two failed courses provided the failed subjects do not include operative dentistry, prosthetic dentistry, or crown and bridge work, and that the total hours of the two courses failed do not exceed one third of the total course hours for that year.

Students who receive conditions or failures amounting to one-third or more of the year's work must repeat the work of the entire year.

A student may repeat an entire year only once during his dental course and may not repeat any other year later, unless the Faculty of the School votes to suspend this rule on recommendation of the class Faculty under which the student has been working.

The class Faculties have general supervision of students' work and the application of these regulations to individual cases.

The Faculty reserves the right to amend the schedule of studies from time to time at its discretion, without further notice.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years or their equivalent in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dental and Oral Surgery.

LICENSE TO PRACTISE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address the Chief of Professional Examinations Bureau, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least fifteen days before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

SCHOLARSHIPS

Beginning in the year 1931-32 there will be available three scholarships of tuition value to the School of Dental and Oral Surgery, to be awarded annually. These scholarships will be open to students from outside the metropolitan area whose records of scholarship and special fitness for dentistry make them particularly desirable to the School.

EWELL PRIZE

A prize to be known as the Ella Maria Ewell Medal will be awarded annually to that student of the School of Dental and Oral Surgery who may, in the judgment of the Faculty, be most proficient in some subject of dentistry. The branch of dentistry for which the award is made will be determined by the executors of the will of Glover C. Beckwith-Ewell.

THE ASSOCIATION OF THE ALUMNI OF THE SCHOOL OF DENTAL AND ORAL SURGERY

Officers

President, JOSEPH R. HORN, D.D.S.

Secretary, HARRY L. KOREN, D.D.S.

Treasurer, ARTHUR FRIEND, D.D.S.

Honorary Chairman, JOSEPH SCHROFF, M.D., D.D.S.

Membership. Any graduate, former student, member of the Faculty or administrative officer of the School of Dental and Oral Surgery is eligible to membership in the Association of the Alumni of the School of Dental and Oral Surgery of Columbia University.

COURSE OF STUDIES

For purposes of instruction the work of each year is scheduled in three trimesters of ten weeks each from September to May. These are designated as First, Second, and Third, and in 1931-1932 begin on September 23, December 4, and February 27, respectively. The twelve-weeks' Summer Session in 1931 begins June 3 and ends August 25. Registration and collection of fees for the regular academic year are administered in accordance with the University Academic Calendar. Students will file their schedules for the First and Second Trimesters at the time of the September registration; for the Third Trimester, in January.

Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., in their first and second years. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years, and to graduates in dentistry.

Elective courses are arranged during the junior and senior years so that students may continue, supplement, or vary the work done in the prescribed courses. At the beginning of each trimester where elective time is allowed, each student is to select the subjects he wishes to take and register the choice with the chairman of the Curriculum Committee, who will arrange for the time and place of meeting. As in all other courses, students will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the class Faculty, may substitute elective courses or research in that department for the prescribed courses.

SUMMARY OF STUDIES

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

The following outline, drawn up from the point of view of the student and covering the four years' study, shows the work required of a candidate for the degree of Doctor of Dental Surgery. The number of hours shown indicates the number of lecture and laboratory hours per week for each trimester. The unit of credit used is the trimester credit which signifies approximately three hours of work a week for one trimester of ten weeks. For classroom work this means one hour in class a week, each requiring an average of two hours of home work. For laboratory or clinical work requiring no outside study it represents three hours of work a week in the School. For a detailed statement of the content of each course, and other questions of detail, the student is referred to the departmental statements which follow.

The schedules of required work hours are subject to change at the pleasure of the Faculty.

CURRICULUM

SUBJECT	TRIMESTER									TOTAL	
	1			2			3			Cr.	Hours
	C	L	Cr.	C	L	Cr.	C	L	Cr.		
FRESHMAN YEAR											
Anatomy, Gross.....	3	18	9	3	18	9	..	..	..	18	360
Anatomy, Microscopic.....	3	12	7	..	..	..	..	..	..	7	150
Anatomy, Neuro.....	..	..	..	..	..	..	2	6	4	4	80
Anatomy, Oral.....	1	..	1/2	1	..	1/2	..	6	2	3	80
Biochemistry.....	..	..	..	2	6	4	2	9	5	9	190
Histology, Oral.....	..	..	..	..	..	..	..	3	1	1	30
Physiology.....	..	..	..	2	6	4	3	6	5	9	170
										51	1060
SOPHOMORE YEAR											
Anatomy, Oral.....	..	6	2	..	3	1	..	..	..	3	90
Bacteriology.....	4	9	7	..	..	..	..	..	..	7	130
Dental Materials.....	..	..	..	..	..	..	..	3	1	1	30
Diagnosis, Oral.....	..	..	..	..	..	..	1	..	1	1	10
Histology, Oral.....	..	..	..	..	..	..	..	3	1	1	30
Hygiene and Prophylaxis, Oral.....	..	3	1	..	3	1	..	..	..	2	60
Operative Dentistry.....	..	6	2	..	6	2	..	12	4	8	240
Pathology.....	2	9	5	4	15	9	..	..	..	14	300
Pharmacology.....	..	..	..	1	3	2	3	6	5	7	130
Prosthetic Dentistry.....	..	..	..	..	3	1	..	9	3	4	120
Psychopathology.....	..	..	..	..	..	..	1	..	1	1	10
Surgery, Oral.....	..	..	..	1	..	1	1	..	1	2	20
										51	1170
JUNIOR YEAR											
Crown and Bridge.....	..	9	3	1	6	3	1	12	5	11	290
Dental Materials.....	..	3	1	..	..	..	..	..	..	1	30
Diagnosis, Oral.....	1	3	2	..	..	..	..	..	..	2	40
Hygiene and Prophylaxis, Oral.....	1	..	1	1	..	1	..	..	..	2	20
Operative Dentistry.....	1	6	3	..	9	3	1	9	4	10	260
Orthodontia.....	1	..	1/2	1	3	1 1/2	..	3	1	3	80
Pathology, Oral.....	1	..	1	1	3	2	1	3	2	5	90
Periodontia.....	..	3	1	..	..	..	..	..	..	1	30
Prosthetic Dentistry.....	..	9	3	..	9	3	1	6	3	9	250
Radiology.....	1	..	1	..	..	..	..	..	..	1	10
Surgery, Oral.....	..	..	..	1	3	2	..	..	..	2	40
Therapeutics, Oral.....	..	..	..	..	..	..	1	..	1	1	10
Electives.....	..	..	..	1	..	1	1	..	1	2	20
										50	1170
SENIOR YEAR											
Children's Dentistry.....	1	3	2	..	3	1	..	3	1	4	100
Crown and Bridge.....	..	6	2	..	9	3	..	6	2	7	210
Operative Dentistry.....	..	6	2	..	9	3	1	9	4	9	250
Periodontia.....	..	..	..	..	3	1	1	..	1	2	40
Practice of Medicine.....	2	3	3	2	..	2	2	..	2	7	90
Prosthetic Dentistry.....	..	9	3	1	6	3	..	9	3	9	250
Public Health.....	1	..	1	1	..	1	1	..	1	3	30
Surgery, Oral.....	2	3	2	2	1	1	..	1	..	3	90
Theory and Practice.....	1	..	1	1	..	1	1	..	1	3	30
Electives.....	..	3	1	..	3	1	..	6	2	4	120
										51	1210

C—Class hours. L—Laboratory hours. Cr.—Credits.

Total Credits 203
Total Hours 4610

DEPARTMENTAL STATEMENTS

ANATOMY

Anatomy 150F—Microscopic anatomy. 15 hours a week for one trimester. First year. 7 trimester credits or 6 points. Professor A. E. SEVERINGHAUS, Dr. R. L. CARPENTER, and assistants.

Lectures, conferences, and laboratory.

This course is the same as the Medical School course 101F.

Anatomy 151FS—Gross anatomy. 18 hours a week for two trimesters. First year. 18 trimester credits or 12 points. Dr. W. M. ROGERS and assistants.

Lectures, conferences, and laboratory.

This course is equivalent to the Medical School course 102FST.

BACTERIOLOGY

Bacteriology 151F—General medical bacteriology and immunology. 9 hours a week for one trimester. Second year. 5 trimester credits or 3 points. Professor R. W. LINTON and assistant.

Lectures, conferences, and laboratory.

This course is the same as the Medical School course 101F in bacteriology up to the point of special problems.

Bacteriology 152F—Principles of epidemiology, infection, immunity, serum diagnosis and therapy. 4 hours a week for one trimester. Second year. 4 trimester credits or 3 points. Professor F. P. GAY.

Lectures given to the dental and medical students together.

BIOLOGICAL CHEMISTRY

Biochemistry 150ST—General physiological chemistry. 8 hours a week for one trimester and 11 hours for the second. First year. 9 trimester credits or 8 points. Professor M. KARSHAN, Dr. F. KRASNOW, and assistants.

Lectures, recitations, and laboratory. Course includes the elements of normal nutrition and dietetics.

This course is equivalent to the Medical School course 101ST.

DENTISTRY

Dentistry 101—Oral anatomy. 1 hour a week for two trimesters, 6 hours a week for two trimesters and 3 hours a week for a third. First and second years. 6 trimester credits. Professor M. DIAMOND and assistants.

Lectures, recitations, and laboratory on the anatomy and development of the individual teeth and the dentures as a whole.

Dentistry 202—Children's dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor E. C. McBEATH and assistants.

Lectures and conferences on operative and preventive dental procedures for children, the handling of the child patient and the application of present knowledge of preventive dentistry to the patient.

Dentistry 203—Children's dentistry clinic. 3 hours a week for three trimesters. Fourth year. 3 trimester credits. Professor E. C. McBEATH and assistants.

Dentistry 204—Children's dentistry elective.

See Electives, page 36.

Dentistry 205—Crown and bridge technic. A total of approximately 210 hours. Third year. 7 trimester credits. Professors W. H. CRAWFORD, E. B. HOYT, and assistants.

Lectures and laboratory on the technical procedures in crown and bridge work. When the technical work is completed the work is continued as crown and bridge clinic.

Dentistry 206—Crown and bridge. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor E. B. HOYT.

Lectures on the technical procedures of crown and bridge work.

Dentistry 207—Crown and bridge. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor E. B. HOYT.

Conference course with outside reading on problems in crown and bridge work.

Dentistry 208a-b—Crown and bridge clinic. A total of 270 hours. Third and fourth years. 208a—third year; 208b—fourth year. 9 trimester credits. Professors A. T. ROWE, E. B. HOYT, W. H. CRAWFORD, and assistants.

Dentistry 209—Crown and bridge elective.

See Electives, page 36.

Dentistry 212a-b—Oral diagnosis. 1 hour a week for two trimesters. Second and third years. 2 trimester credits. Professor H. J. LEONARD.

Lecture and conference course in oral examination and charting, history taking, oral diagnosis, dental X-ray interpretation, and the anatomy, physiology, and mechanics of occlusion.

Dentistry 213—Oral diagnosis. A total of 30 hours. Third year. 1 trimester credit. Dr. D. E. ZISKIN and clinical staff.

Laboratory exercises, clinical practice and demonstrations in oral examination and charting, history taking, oral diagnosis, dental X-ray interpretation and the study of dental occlusion.

Dentistry 214—Oral diagnosis elective.

See Electives, page 36.

Dentistry 115—Oral histology and embryology. 3 hours a week for two trimesters. Second year. 2 trimester credits. Professor C. F. BODECKER and Dr. E. APPELEBAUM.

Lectures and laboratory work on the microscopic structures of the oral tissues and the application of this knowledge to technical dentistry.

Dentistry 216—Oral histology and embryology elective.

See Electives, page 37.

Dentistry 221—Oral hygiene and prophylaxis. 3 hours a week for two trimesters. Second year. 2 trimester credits. Professor A. V. HUGHES, Miss K. F. HOLLIS, and assistants.

Lectures, laboratory, and clinical work on personal dental hygiene and dental prophylactic technic.

Dentistry 222a-b—Oral hygiene. 1 hour a week for two trimesters. Third year. 2 trimester credits. Professor H. J. LEONARD.

Lectures and conferences on the application of bacteriology, physiology, and biochemistry to preventive dentistry. Community dentistry.

Dentistry 224a-b—Oral hygiene elective.

See Electives, pages 36 and 37.

Dentistry 226—Physical properties of dental materials. 3 hours a week for two trimesters. Third year. 2 trimester credits. Professor W. H. CRAWFORD.

Metallurgical processes and apparatus. Physical and chemical properties of the metals and other materials used in dentistry. Lectures and laboratory work.

Dentistry 227—Physical properties of dental materials elective.

See Electives, page 37.

Dentistry 131-231—Operative dentistry technic. A total of 180 hours in three trimesters. Second and third years. 131—second year; 231—third year. 6 trimester credits. Professors L. L. HARTMAN, M. BUCHBINDER, Dr. G. F. LINDIG, and assistants.

Lectures and laboratory work on operative instruments and materials, their care and uses, root canal technic and the technic of cavity preparations and fillings. When the technic is completed the work is continued as operative dentistry clinic.

Dentistry 233—Operative dentistry. 2 hours a week for two trimesters. Third year. 2 trimester credits. Professor L. L. HARTMAN.

Lectures and conferences on operative dentistry procedures.

Dentistry 134-234—Operative dentistry clinic. A total of 540 hours. Third and fourth years. 134—third year; 234—fourth year. 18 trimester credits. Professors L. L. HARTMAN, M. BUCHBINDER, Dr. G. F. LINDIG, and assistants.

Dentistry 235—Operative dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor L. L. HARTMAN.

Conference course on problems in operative dentistry.

Dentistry 239—Operative dentistry elective.

See Electives, page 36.

Dentistry 241—Orthodontia. 30 hours of laboratory work. Second or third year. 1 trimester credit. Professor L. M. WAUGH, Drs. H. U. BARBER and E. G. MURPHY.

Laboratory instruction in free hand soldering, the fundamental technic of making appliances and space retainers.

Dentistry 242—Orthodontia. 1 hour of lecture per week for two trimesters and a total of 30 hours of demonstrations in the clinic. Third year. 2 trimester credits. Professor L. M. WAUGH and staff.

Orthodontic procedures with special emphasis on preventive orthodontia and the factors which predispose to malocclusion.

Dentistry 243a and b—Orthodontia electives.

See Electives, pages 36 and 37.

Dentistry 246—Oral pathology. 1 hour a week lecture for three trimesters, 3 hours a week laboratory for two trimesters. Third year. 5 trimester credits. Professors J. SCHROFF, L. R. CAHN, and assistant.

Lectures, conferences and laboratory work on the microscopic and macroscopic study of the diseases and deformities of the jaws, mouth and teeth.

Dentistry 247a-b-c—Oral pathology electives.

See Electives, pages 36 and 37.

Dentistry 251a-b—Periodontia clinic. 60 hours. 251a—third year; 251b—fourth year. 2 trimester credits. Professors W. B. DUNNING, H. J. LEONARD, I. HIRSCHFELD, and H. HOLLIDAY.

Lectures and clinical work in the diagnosis and treatment of periodontoclasia.

Dentistry 252—Periodontia. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor H. J. LEONARD.

Lectures and conferences on the theory and practice of periodontia.

Dentistry 253a-b-c—Periodontia electives.

See Electives, pages 36 and 37.

Dentistry 155-255—Prosthetic dentistry technic. A total of approximately 270 hours. Second and third years. 155—first year; 255—second year. 9 trimester credits. Professor A. T. ROWE, Drs. H. A. YOUNG and G. P. SMITH, and assistants.

Lectures and laboratory on the mechanics of denture construction. When the technic is completed, the work is continued as prosthetic dentistry clinic.

Dentistry 256—Prosthetic dentistry. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor A. T. ROWE.

Lectures and conferences on materials and principles of denture construction.

Dentistry 258a-b—Prosthetic dentistry clinic. A total of 330 hours. Third and fourth years. 258a—third year; 258b—fourth year. 11 trimester credits. Professors A. T. ROWE, W. H. CRAWFORD, E. B. HOYT, Drs. H. A. YOUNG, F. C. KUEVER, G. P. SMITH, and assistants.

Infirmary practice and demonstrations in denture construction.

Dentistry 259—Prosthetic dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor A. T. ROWE.

Conference course on fundamental problems in prosthetic dentistry given toward the end of the clinical work.

Dentistry 260—Prosthetic dentistry elective.

See Electives, page 36.

Dentistry 165—Oral radiology. 1 hour a week for one trimester. Second year. 1 trimester credit. Professor H. HOLLIDAY.

Lectures, readings, and discussions on topics relative to oral radiology.

Dentistry 266—Oral radiology elective.

See Electives, page 36.

Dentistry 168—Principles of surgery. 1 hour a week for two trimesters. Second year. 2 trimester credits. Professors D. PARKER and F. S. McCAFFREY. Lectures and conferences on general surgical diseases and the principles of their treatment.

Dentistry 270—Oral surgery. 1 hour a week lecture for one trimester. Third year. 1 trimester credit. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFREY, S. BIRENBACH, Dr. M. A. ZIMMER and assistants. Lectures and conferences on local and general anesthesia and exodontia.

Dentistry 271—Oral surgery clinic. A total of 60 hours. Third and fourth years. 2 trimester credits. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFREY, S. BIRENBACH, and assistants.

Clinical practice and demonstrations on local anesthesia and exodontia. Time is also assigned to observation of oral surgical operations and to an organized oral pathology clinic.

Dentistry 272—Oral surgery. 2 hours a week for two trimesters. Fourth year. 2 trimester credits. Professors H. S. DUNNING, A. BERGER, and D. PARKER.

Lectures and conferences on oral and maxillo-facial surgery.

Dentistry 273—Oral surgery. A total of 30 hours. Fourth year. No credit. Professors H. S. DUNNING, A. BERGER, and D. PARKER.

Demonstration of oral and maxillo-facial lessons.

Dentistry 274—Oral surgery elective.

See Electives, page 36.

Dentistry 281—Theory and practice of dentistry. 1 hour a week for three trimesters. Fourth year. 3 trimester credits. Professors H. W. GILLET, A. OWRE, and M. C. TRACY.

A lecture and conference course including an undergraduate thesis on the history of dentistry, dental ethics, dental economics, dental jurisprudence and other subjects.

Dentistry 285—Oral therapeutics. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor J. SCHROFF.

Lectures and conferences on therapeutic agents used in dentistry.

NEUROLOGY

Neurology 150—Neuro-anatomy. 2 hours of lecture and 6 hours of laboratory a week for one trimester. First year. 4 trimester credits or 3 points. Professors A. ELWYN, B. STOOKEY, O. S. STRONG, and Drs. B. SALZER, L. V. LYONS, and R. M. BRICKNER.

Lectures and demonstrations on the gross anatomy, structure, and functions of the central nervous system. This course is equivalent to the Medical School course *Neurology 101*.

PATHOLOGY

Pathology 150FS—General and special pathology. 11 hours lecture and laboratory a week for one trimester and 15 hours a week for the second. Second year. 14 trimester credits. Professors J. W. JOBLING, M. N. RICHTER, and assistants.

Lectures and laboratory.

This course is equivalent to the Medical School course *Pathology 101*, and is also open to candidates for the degrees of A.M. or Ph.D.

PHARMACOLOGY

Pharmacology 150—General pharmacology. One lecture and one three-hour laboratory period in the second trimester; one lecture, two conferences and two three-hour laboratory periods in the third trimester. 7 trimester credits or 6 points. Second year. Professor C. C. LIEB and assistants.

Lectures and laboratory. In this course the pharmacological action of drugs on man and lower animals is studied. Short courses in pharmacy and prescription writing are included.

This course is equivalent to the Medical School course *Pharmacology 101S*, the two classes being taught together for lectures. Laboratory sections are separate.

PHYSIOLOGY

Physiology 150—Mammalian physiology. 8 hours a week for one trimester and 9 hours a week for the second trimester. First year. 9 trimester credits or 10 points. Professor H. B. WILLIAMS and assistants.

Lectures, conferences and laboratory. This course is equivalent to the Medical School course *Physiology 101*, the two classes being taught together for lectures.

PRACTICE OF MEDICINE

Practice of Medicine 250—General survey of medicine. 3 hours per week for three trimesters. 9 trimester credits or 6 points. Fourth year. Professor W. W. PALMER and Drs. D. D. MOORE and N. BROWN.

Lectures, conferences and clinics covering systematically the field of general medicine.

Practice of Medicine 251—Medico-dental clinic. A total of 30 hours of clinic in three trimesters. Fourth year. 1 trimester credit. Dr. N. BROWN.

Clinics in small groups in which the dental patients are studied for systematic relationships emphasizing medical history taking.

PSYCHIATRY

Psychiatry 150T—Psychopathology. 1 hour a week for one trimester. Second year. 1 trimester credit or 1 point. Professor C. I. LAMBERT.

Lectures on the structural basis of the mind; the instincts and emotions; development of the personality; social adjustment, failures in adjustment, compensatory reactions; types of abnormal behavior; emotional neurotic and personality factors in physical illness; functional disorders with special reference to dental practice. General principles of mental hygiene.

This course is the same as the Medical School course *Psychiatry 101*.

PUBLIC HEALTH

Public Health 250—Preventive medicine and public health administration. 1 hour a week for three trimesters. Fourth year. 3 trimester credits or 2 points. Professor H. EMERSON and assistants.

This course is the same as the Medical School course, preventive medicine and *Public Health Administration 201FST*, the two classes being taught together.

ELECTIVES

Electives are of five general types:

1. Reading and conference courses, usually leading to the preparation of a paper on some phase of a subject.
2. Clinic courses consisting of further practice in the regular subjects of some phase of special practice.
3. Technic courses consisting of training and practice in special methods in technical dentistry.
4. Scientific laboratory courses consisting of advanced work in the scientific subjects of the dental curriculum.
5. Special researches.

The elective time may also be devoted and assigned to some one of the regular subjects, such as oral hygiene or public health, where a bit of original investigation is required to which the student would like to devote more time than the regular course provides.

It is not possible to offer in each trimester all of the courses which may be listed, due to overcrowded infirmary or other reasons. In general students are expected to have completed their requirements in a subject before electing advanced work in it. Otherwise it is desired to allow the greatest freedom in elective work consistent with the regular work of the School, in order that students may start following the lines of their special interests.

Each student eligible for elective work will confer with the Chairman of the Curriculum Committee, who will arrange for time and place of meeting. Students will be held for the successful completion of elective courses, including attendance and examination.

READING AND CONFERENCE COURSES

Dentistry 204—Children's dentistry. Professor McBEATH.

Dentistry 209—Crown and bridge work. Professor HOYT.

Dentistry 224a—Oral hygiene. Professor LEONARD.

Dentistry 247a—Oral pathology. Professor SCHROFF.

Dentistry 253a—Periodontia. Professor LEONARD.

Dentistry 260—Prosthetic dentistry. Professor ROWE.

CLINIC COURSES

Dentistry 214—Oral diagnosis. Dr. ZISKIN.

Dentistry 243a—Orthodontia. Professor WAUGH.

Dentistry 253b—Periodontia. Professor LEONARD.

Dentistry 274—Oral surgery. Professor BERGER.

TECHNIC COURSES

Dentistry 239—Operative technic—porcelain inlay. Professor HARTMAN.

Dentistry 244—Applied art. Mrs. KINGSBURY.

Dentistry 266—Radiography. Professor HOLLIDAY.

LABORATORY COURSES

Dentistry 216—Oral histology. Professor BODECKER.

Dentistry 247b—Oral pathology. Professor CAHN.

Dentistry 247c—Clinical pathology. Dr. BARTELS.

RESEARCH COURSES

Dentistry 224b—Oral hygiene. Professor LEONARD.

Dentistry 227—Physical properties of dental materials. Professor CRAWFORD.

Dentistry 243b—Orthodontia. Professor WAUGH.

Dentistry 253c—Periodontia. Professor LEONARD.

Special research problems in fundamental science and other dental science may be arranged with the teachers concerned.

REQUIRED TEXTBOOKS

The following list includes most of the books recommended. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York. These prices are liable to fluctuation. As a rule, the latest editions only of the textbooks should be purchased. Students are warned against buying any books until specifically advised by the departments concerned.

ANATOMY, GROSS. Cunningham, *Manual of Practical Anatomy*. Choice of Gray's *Anatomy*; Cunningham's *Textbook of Anatomy*; Piersol's *Human Anatomy*.

ANATOMY, MICROSCOPIC. Choice of Maxinow, *Textbook of Histology*; Jordan, *A Textbook of Histology*; Bailey, Strong, and Elwyn, *Textbook of Histology*; Bremer, *Textbook of Histology*.

BACTERIOLOGY. Choice of Park and Williams, *Pathogenic Micro-organisms*, \$6.50; Zinsser, *Text-book of Bacteriology*, \$7.50.

BIOCHEMISTRY. Bodansky, *Introduction to Physiological Chemistry*, \$4.00; Hawk and Bergeim, *Practical Physiological Chemistry*, \$6.50.

DENTISTRY

Anatomy, oral. Diamond, *Dental Anatomy*. \$5.00.

Children's dentistry. Mimeographed notes furnished by the Department.

Crown and bridge. Mimeographed notes furnished by the Department.

Diagnosis, oral. Mimeographed notes furnished by the Department.

Histology, oral. Bodecker, *Fundamentals of Dental Histology and Embryology*, \$6.50.

Hygiene, oral. Fones, *Mouth Hygiene*, \$5.00, or Fones, *Preventive Dentistry*, \$2.50. Mimeographed notes are also furnished by the Department.

Operative dentistry. Black, *Operative Dentistry*, Vols. 1 and 2, \$12.00. Mimeographed notes are also furnished by the Department.

Pathology, oral. Choice of Bunting, *Oral Pathology*, \$7.00 or Moorehead and Dewey, *Pathology of the Mouth*, \$7.00.

Periodontia. Mimeographed notes furnished by the Department.

Physical properties of dental materials. Mimeographed notes furnished by the Department.

Prosthetic dentistry. Wilson, *Dental Prosthetics*, \$5.50; recommended but not required: Nichols, *Prosthetic Dentistry*; E. Kennedy, *Partial Denture Construction*.

Surgery, oral. Berger, *Principles and Technique of Oral Surgery*, \$7.00; Fischer and Reithmuller, *Local Anesthesia*, \$4.50; Blair and Ivy, *Essentials of Oral Surgery*; De Costa, *General Surgery*.

Neuro-Anatomy. Elwyn and Strong, *Laboratory Course in Histology*, \$2.50; Bailey, Strong and Elwyn, *Text Book of Histology*, \$7.00.

PHARMACOLOGY. *Useful Drugs*, \$0.60; choice of Cushny, *Pharmacology and Therapeutics*, \$6.00; Dixon, *Manual of Pharmacology*, \$7.00; Sollmann, *Manual of Pharmacology*, \$7.50.

PHYSIOLOGY. Choice of MacLeod, *Physiology and Biochemistry in Modern Medicine*; Starling, *Human Physiology*; Howell, *A Text Book of Physiology*; Martin and Weymouth, *Elements of Physiology*.

PRACTICE OF MEDICINE. Choice of Cecil, *Text Book of Medicine*, \$9.00; Osler and McCrae, *Practice of Medicine*, \$7.50.

PSYCHIATRY. White, *Introduction to the Study of the Mind*, \$2.00.

PUBLIC HEALTH. Not required, but recommended for supplementary reading. Park, *Public Health and Hygiene*; Rosenau, *Preventive Medicine*; Moore, *Public Health in the United States*; Price, *Public Health and Hygiene*.

DICTIONARY. Choice of Stedman, *Medical Dictionary*, \$7.00; Dorland, *Illustrated Medical Dictionary*, \$8.00; Gould, *The Student's Medical Dictionary*, \$2.00.

ACADEMIC CALENDAR

1931

- July 1 Wednesday. Registration in Summer Session begins.
- July 3 Friday. Last day of registration for students desiring full credit.
- July 6 Monday. Thirty-second Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.
- August 1 Saturday. Last day for filing applications for the degrees of Master of Science, and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December.
Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 14 Friday. Thirty-second Summer Session ends.
- September 7 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 14 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- September 16 Wednesday. Placement examinations required of freshmen admitted to Columbia College.
- September 17 Thursday. Placement examinations required of freshmen admitted to Columbia College.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES) FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- September 16 Wednesday, to October 3, Saturday. For University Extension students desiring credit.
- September 18 Friday, to September 23, Wednesday. For students in the School of Law, the School of Business (excepting graduate students), and Barnard College.
- September 19 Saturday, to September 23, Wednesday. For students in Education and Practical Arts and the School of Journalism (excepting graduate students).
- September 21 Monday, to September 23, Wednesday. For students in Columbia College, Seth Low Junior College, the School of Engineering, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 21 Monday, to September 26, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, and Public Health.

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- September 23 Wednesday. Winter Session, 178th year begins.
- September 24 Thursday. Classes begin.

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- September 26 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.
- October 1 Thursday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
Last day for filing essays for the degree of Master of Science to be conferred in October.
- October 3 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy, and Pure Science.
- October 10 Saturday. Last day for making changes in program for students in the Faculties of Political Science, Philosophy, and Pure Science.
- October 20 Tuesday. Stated meeting of University Council.
- November 3 Tuesday. Election Day, holiday.
- November 16 Monday. Last day for filing essays for the degree of Master of Arts to be conferred in December.
- November 24 Tuesday. Annual Thanksgiving Service in St. Paul's Chapel.
- November 26 Thursday, to November 28, Saturday, inclusive. Thanksgiving holidays
- December 1 Tuesday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- December 15 Tuesday. Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken at mid-year. The privilege of later application may be granted on payment of a fee of \$6.
- December 15 Tuesday. Stated meeting of the University Council.
- December 21 Monday, to

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- January 3 Sunday, inclusive. Christmas holidays.
- January 10 Sunday. Annual Commemoration Service in St. Paul's Chapel.
- January 20 Wednesday. Mid-year examinations begin.
- February 1 Monday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)

FOR THE SPRING SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- January 19 Tuesday, to January 25, Monday. For students in the School of Medicine.
- January 28 Thursday, to February 13, Saturday. For University Extension students desiring credit.
- January 30 Saturday, to February 2, Tuesday. For all other students.
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- February 2 Tuesday. Winter Session ends.
Last day for filing essays for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.

1932

- February 3 Wednesday. Spring Session begins. Classes begin.
- February 6 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.
- February 12 Friday. Alumni Day.
- February 13 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy, and Pure Science.
- February 16 Tuesday. Stated meeting of University Council.
- February 20 Saturday. Last day for making changes in program for students in the Faculties of Political Science, Philosophy, and Pure Science.
- February 22 Monday. Washington's Birthday, holiday.
- March 1 Tuesday. Last day for filing applications for University Fellowships and University Scholarships.
- Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- March 10 Thursday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- March 24 Thursday, to March 28, Monday, inclusive. Easter holidays.
- April 1 Friday. Last day for filing applications for examination for the degrees of Doctor of Philosophy and Doctor of Law to be conferred in June. Last day for filing Cutting Fellowship applications.
- April 15 Friday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken in May. The privilege of later application may be granted on payment of a fee of \$6.
- April 19 Tuesday. Stated meeting of University Council.
- May 2 Monday. Last day for students in Columbia College and Seth Low Junior College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
- Last day for filing applications for scholarships in the Schools of Law, Engineering, Architecture, and Columbia College.
- May 16 Monday. Final examinations for all courses begin.
- May 17 Tuesday. Last day for filing essays for the degrees of Master of Arts and Master of Science to be conferred in June.
- May 30 Monday. Memorial Day, holiday.

COMMENCEMENT, MAY 29 TO JUNE 1

- May 29 Sunday. Baccalaureate Service.
- May 30 Monday. Class Day.
- May 31 Tuesday. Conferring of Degrees.
- June 8 Wednesday. Spring Session ends.
- June 20 Monday. Entrance examinations begin.
- June 30 Thursday. Registration in Summer Session begins.
- July 2 Saturday. Last day of registration for students desiring full credit.
- July 5 Tuesday. Thirty-third Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.

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- August 1 Monday. Last day for filing applications for the degrees of Master of Science, and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December.
Last day for filing applications for deficiency and special examinations.
The privilege of later applications may be granted on payment of a fee of \$6.
- August 12 Friday. Thirty-third Summer Session ends.
- September 12 Monday. Last day for filing applications for entrance examinations.
The privilege of later application may be granted on payment of a fee of \$6.
- September 19 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- September 21 Wednesday. Placement examinations required of freshmen admitted to Columbia College.
- September 22 Thursday. Placement examinations required of freshmen admitted to Columbia College.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- September 21 Wednesday, to October 8, Saturday. For University Extension students desiring credit.
- September 23 Friday, to September 28, Wednesday. For students in the School of Law, the School of Business (excepting graduate students), and Barnard College.
- September 24 Saturday, to September 28, Wednesday. For students in Education and Practical Arts and the School of Journalism (excepting graduate students).
- September 26 Monday, to September 28, Wednesday. For students in Columbia College, Seth Low Junior College, the School of Engineering, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 26 Monday, to October 1, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, and Public Health.

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- September 28 Wednesday. Winter Session, 179th year begins.
- September 29 Thursday. Classes begin.

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Columbia University

BULLETIN OF INFORMATION

Thirty-second Series, No. 32

May 7, 1932

ANNOUNCEMENT OF THE

SCHOOL OF DENTAL AND ORAL SURGERY

FOR THE WINTER AND SPRING SESSIONS

1932-1933

See
C.
1932/10



630 WEST 168TH STREET
NEW YORK

Columbia University Bulletin of Information

Thirty-second Series, No. 32

May 7, 1932

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

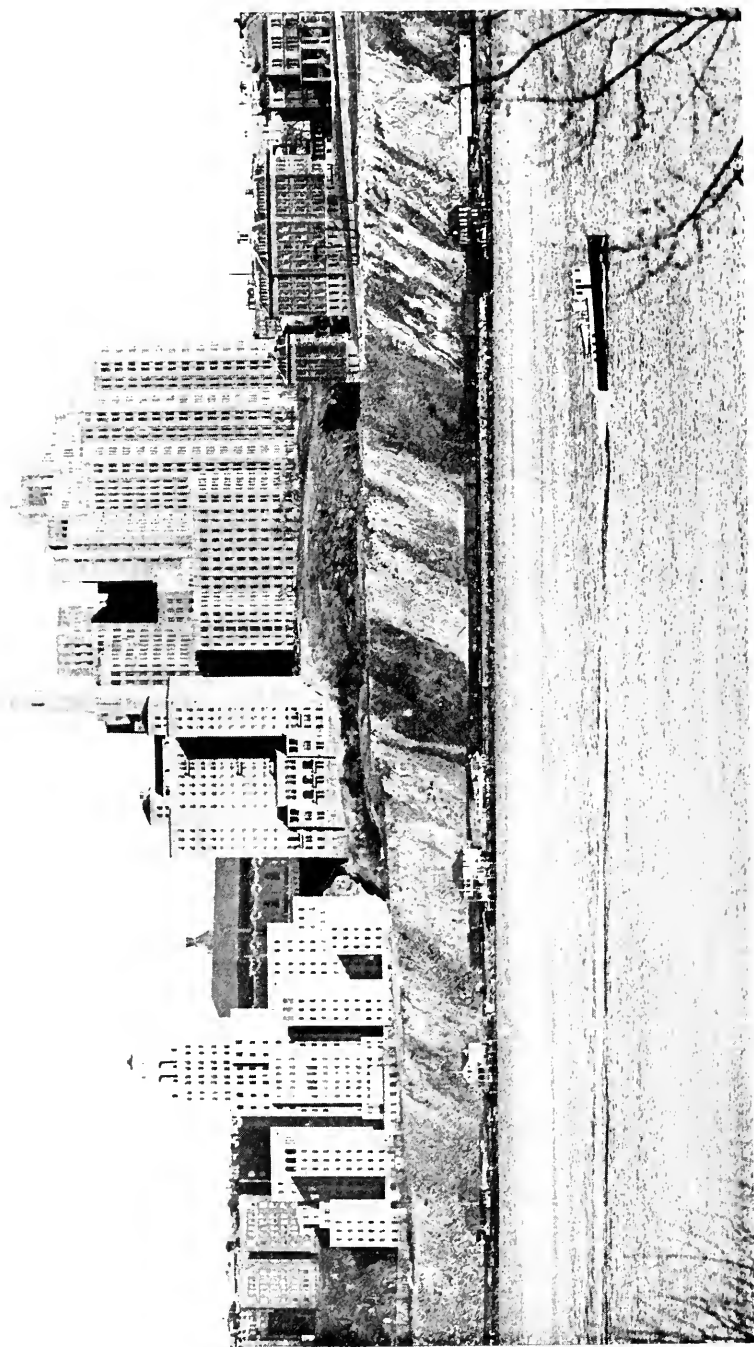
1. The Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, Directory Number, and the Announcements of the several Colleges and Schools and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P. 5,900—1932.

COMMUNICATIONS

All communications regarding the School of Dentistry, application for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 630 West 168th Street; telephone Billings 5-6000.





MEDICAL CENTER, VIEW FROM THE WEST

Columbia University

in the City of New York

ANNOUNCEMENT OF THE

SCHOOL OF DENTAL AND ORAL SURGERY

FOR THE WINTER AND SPRING SESSIONS

1932-1933



630 WEST 168TH STREET
NEW YORK

THE SCHOOL OF DENTISTRY

OFFICERS

NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon.), Hon.D. (Paris)
President of the University

ALFRED OWRE *Dean and Professor of Dentistry*
D.M.D., Minnesota, 1894; A.B., 1910; M.D. and C.M., Hamline, 1895; Sc.D., Columbia, 1929.
Special Consultant (Dentistry), Presbyterian Hospital Staff; Member of the Dental Advisory Board, Department of Health, New York City.

LEUMAN MAURICE WAUGH *Associate Dean and Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1922.
Consulting Orthodontist, New York Orthopedic Dispensary and Hospital; Member, Dental Advisory Board, Department of Health, New York City.

FACULTY

ADOLPH BERGER *William Carr Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909.
Oral Surgeon to Beth Israel Hospital; Attending Dental Surgeon Presbyterian Hospital; Oral Surgeon to Hospital for Joint Diseases.

CHARLES FRANCIS BODECKER *Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1925.

HANS THACHER CLARKE *Professor of Biological Chemistry*
B.Sc., London, 1908; D.Sc., 1913.
Consultant in Biological Chemistry, Presbyterian Hospital.

SAMUEL RANDALL DETWILER *Professor of Anatomy*
Ph.B., Yale, 1914; A.M., 1916; Ph.D., 1918; M.Sc., 1931.
Consultant in Anatomy, Presbyterian Hospital.

HENRY SAGE DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York University, 1915; F.A.C.S., 1924.
Attending Oral Surgeon, Vanderbilt Clinic; New York Hospital; Attending Oral Surgeon, Presbyterian Hospital; Fifth Avenue Hospital; Knickerbocker Hospital; Nassau Hospital; Broad Street Hospital; Vassar Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear, and Throat Hospital; St. Luke's Hospital; Roosevelt Hospital and St. Vincent's Hospital; Attending Oral Surgeon, Babies' Hospital; Attending Oral Surgeon, Sloane Hospital; Consulting Oral Surgeon, Post-Graduate Hospital and Port Chester Allied Hospitals.

WILLIAM BAILEY DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1895; F.A.C.D., 1928.
Attending Dental Surgeon, Presbyterian Hospital; Director of the Department of Dentistry, New York Orthopedic Dispensary and Hospital.

- FREDERICK PARKER GAY *Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901.
Commander of the Order of the Crown of Belgium; Bacteriologist, Presbyterian Hospital.
- HENRY WEBSTER GILLET *Professor of Dentistry*
D.M.D., Harvard, 1885.
Member, Dental Advisory Board, Department of Health, New York City.
- LEROY LEO HARTMAN *Professor of Dentistry*
D.D.S., Northwestern, 1913.
- ANNA VERONICA HUGHES *Professor of Dentistry and in Charge
of Courses in Oral Hygiene*
D.M.D., Tufts, 1909.
Attending Dental Surgeon, Presbyterian Hospital; Member, Dental Advisory Board, Department of Health, New York City.
- JAMES WESLEY JOBLING *Professor of Pathology*
M.D., Tennessee Medical, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- HAROLD JUDSON LEONARD *Professor of Dentistry*
D.D.S., Minnesota, 1912; A.B., 1915.
Secretary of the Faculty; Attending Dental Surgeon, Presbyterian Hospital.
- CHARLES CHRISTIAN LIEB *Hosack Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
Consultant, Pharmacology, Presbyterian Hospital; Consultant in Pharmacology, Mt. Sinai Hospital.
- WILLARD COLE RAPPLEYE *Dean of the College of Physicians and Surgeons*
A.B., Illinois, 1915; M.D., Harvard, 1918; A.M., Yale, 1922.
- ARTHUR TAYLOR ROWE *Professor of Dentistry*
D.D.S., Minnesota, 1906.
Attending Dental Surgeon, Presbyterian Hospital.
- WILLIAM DWIGHT TRACY *Professor of Dentistry*
D.D.S., Pennsylvania, 1896.
Director of Dental Service, Presbyterian Hospital.
- HORATIO BURT WILLIAMS *Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905; Sc.D., 1925.
Consultant, Physiology, Presbyterian Hospital.

OTHER OFFICERS OF INSTRUCTION

- EDMUND APPLEBAUM *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1922.
- HENRY ULYSSES BARBER, JR. *Instructor in Dentistry*
D.D.S., Pennsylvania, 1916.

- HENRY ARTHUR BARTELS *Instructor in Dentistry*
B.S., Rhode Island State, 1917; B.S., Columbia, 1925; D.D.S., 1927.
- WALTER REGINALD BEAVEN *Instructor in Pharmacology*
D.D.S., Columbia, 1926.
- SAMUEL BIRENBACH *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1917.
- JOSEPH BOLAND *Assistant in Pathology*
M.D., Albany Medical, 1929.
Assistant Resident Pathologist, Presbyterian Hospital.
- RICHARD M. BRICKNER *Associate in Neurology*
B.S., Columbia, 1921; M.D., 1923.
- NORTON S. BROWN *Assistant in Medicine*
A.B., Stanford, 1925; M.D., 1929.
- MAURICE BUCHBINDER *Assistant Professor of Dentistry*
B.S., College of the City of New York, 1917; D.D.S., Columbia, 1925.
- LESTER RICHARD CAHN *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1917.
- GEORGE SAMUEL CALLAWAY *Instructor in Dentistry*
D.D.S., Pennsylvania, 1923.
- RUSSELL LEGRAND CARPENTER *Associate in Anatomy*
B.S., Tufts, 1924; Ph.D., Harvard, 1928.
- KENNETH FULTON CHASE *Instructor in Dentistry*
D.M.D., Tufts, 1928.
- WILFRED MONROE COPENHAVER *Assistant Professor of Anatomy*
A.B., Western Maryland, 1921; Ph.D., Yale, 1925.
- WILLIAM HOPKINS CRAWFORD *Associate Professor of Dentistry*
D.D.S., Minnesota, 1923.
- JAMES T. CULBERTSON *Instructor in Bacteriology*
B.S., William and Mary, 1926; A.M., Cornell, 1930.
- MOSES DIAMOND *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1914.
- WALTER F. DUGGAN *Instructor in Physiology*
A.B., Columbia, 1923; A.M., 1925; M.D., 1927.
- IRENE EASTMAN *Assistant in Biological Chemistry*
A.B., North Dakota, 1918; M.S., Chicago, 1925.
- ADOLPH ELWYN *Assistant Professor of Neurology*
B.S., Columbia, 1915; A.M., 1917.

- HAVEN EMERSON *Professor of Public Health Administration*
A.B., Harvard, 1896; A.M., Columbia, 1899; M.D., 1899.
- ABRAHAM FIRESTONE *Instructor in Anatomy*
A.B., College of the City of New York, 1920; M.D., Columbia, 1924.
Assistant Urologist, Mt. Sinai Hospital.
- ¹FREDERICK BONNER FLINN *Associate Professor of Physiology in
Industrial Hygiene*
A.B., Johns Hopkins, 1900; Ph.D., Columbia, 1923.
- JOSEPH OCTAVIUS FOURNIER *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1913.
- BERN BUDD GALLAUDET *Associate Professor of Anatomy*
A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
Consulting Surgeon, Bellevue Hospital.
- EDWARD SETTLE GODFREY *Clinical Professor of Epidemiology*
M.D., Virginia, 1900.
- LEO JOSEPH HAHN *Instructor in Physiology*
Ph.D., Yale, 1914; M.D., 1918.
- ISADOR HIRSCHFELD *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1902.
Attending Dental Surgeon, Presbyterian Hospital; Associate Oral and Dental Surgeon, New
York Hospital for Joint Diseases; Chief, Periodontia Department, Beth Israel Hospital.
- HOUGHTON HOLLIDAY *Assistant Professor of Dentistry*
A.B., Minnesota, 1915; D.D.S., 1917.
Attending Dental Surgeon, Presbyterian Hospital.
- KATHERINE FLORENCE HOLLIS *Instructor in Dentistry*
D.H., Columbia, 1921.
- ALEITA HOPPING *Assistant Professor of Physiology*
A.B., Hunter, 1912; Ph.D., Columbia, 1923.
- FREDERICK HOLLIS HOWARD *Assistant Professor of Physiology*
M.D., Pennsylvania, 1898; A.B., Williams, 1926.
- EARL BANKS HOYT *Assistant Professor of Dentistry*
D.D.S., Pennsylvania, 1918.
- MARY CAROLINE HRUBETZ *Instructor in Physiology and Pharmacology*
A.B., California, 1920; A.M., Columbia, 1928.
- MELVILLE HUMBERT *Instructor in Pharmacology*
A.B., Columbia, 1923; B.S., 1924; D.D.S., 1926.
- IRVIN L. HUNT, JR. *Instructor in Dentistry*
D.D.S., Pennsylvania, 1929.

¹Absent on leave Spring Session.

- MAXWELL KARSHAN *Associate Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; A.M., Columbia, 1920; Ph.D., 1925.
- GEORGE HUGHES KIRBY *Professor of Psychiatry*
B.S., North Carolina, 1896; M.D., Long Island College Hospital, 1899.
Director, New York State Psychiatric Institute and Hospital; Consulting Psychiatrist, U. S. Veteran's Hospital No. 81 and Children's Hospital.
- FRANCES KRASNOW *Instructor in Biological Chemistry*
B.S., A.M., Columbia, 1917; Ph.D., 1922.
- FRED HENRY KUVER *Instructor in Dentistry*
D.D.S., Columbia, 1926.
- CHARLES I. LAMBERT . . . *Professor of Psychiatric Education in Teachers College*
B.S., Iowa, 1901; M.S. and M.D., 1903.
Attending Psychiatrist, Vanderbilt Clinic; Assistant Consultant, Presbyterian Hospital.
- GEORGE FRANK LINDIG *Instructor in Dentistry*
D.D.S., Minnesota, 1924.
- JULIUS K. LITTMAN *Instructor in Anatomy*
M.D., Long Island Medical, 1926.
Assistant Adjunct in Surgery, Bronx Hospital.
- JOSEPHINE EMILY LUHAN *Assistant Professor of Dentistry*
D.D.S., New York College of Dental and Oral Surgery, 1912.
- L. VOSBURGH LYONS *Instructor in Neurology*
M.D., Columbia, 1917.
- EWING CLEVELAND McBEATH *Associate Professor of Dentistry*
D.D.S., Minnesota, 1910; B.S., 1919; B.M., 1920; M.D., 1921.
- FRANCIS STEPHEN McCAFFREY *Assistant Professor of Dentistry*
B.S., Fordham, 1911; D.D.S., New York College of Dentistry, 1915.
Visiting Oral Surgeon, St. Vincent's Hospital; Visiting Dental Surgeon, Fordham Hospital; Attending Dental Surgeon, Presbyterian Hospital; Junior Oral Surgeon, Manhattan Eye, Ear, and Throat Hospital; Assistant Attending Oral Surgeon, Vanderbilt Clinic; Consulting Oral Surgeon, Manhattan Hospital.
- MORELL DION MCKENZIE *Instructor in Dentistry*
D.D.S., Minnesota, 1917.
- DONALD JOHN McLAUGHLIN *Instructor in Dentistry*
D.D.S., Minnesota, 1926.
- HENRY MILCH *Instructor in Anatomy*
A.B., Columbia, 1916; M.D., 1916.
Associate Attending Surgeon in Orthopedics, Hospital for Bone and Joint Diseases; Adjunct Surgeon, Riverside Hospital.
- DAVID DODGE MOORE *Instructor in Medicine*
A.B., Princeton, 1921; M.D., Columbia, 1925.

- EDWARD GERALD MURPHY *Instructor in Dentistry*
D.D.S., Michigan, 1924; P.G., Pennsylvania, 1925.
- ROBERT NORTHPROP *Instructor in Dentistry*
D.D.S., Michigan, 1928.
- ARMAND M. OPPENHEIMER *Instructor in Dentistry*
A.B., College of the City of New York, 1926; B.S., Columbia, 1927; D.D.S., 1929.
- ENID TRIBE OPPENHEIMER *Instructor in Physiology*
B.Sc., London, 1908.
- JOHN W. PALMER *Assistant in Biological Chemistry*
A.B., Iowa, 1928; M.S., 1929.
- WALTER WALKER PALMER *Bard Professor of the Practice of Medicine*
B.S., Amherst, 1905; Sc.D., 1922; M.D., Harvard, 1910; Sc.D., Columbia, 1929.
Director of Medical Service, Presbyterian Hospital; Consulting Physician, Sloane Hospital.
- DOUGLAS BURNETT PARKER *Associate Professor of Dentistry*
M.D., Long Island College Hospital, 1912; D.D.S., Pennsylvania, 1914.
Assistant Attending Oral Surgeon, Presbyterian Hospital; Instructor in Surgery, College of Physicians and Surgeons; Associate Surgeon, Long Island College Hospital; Instructor in Surgery, Medical School, Long Island College Hospital; Consultant in Oral Surgery, Swedish Hospital, Vassar Hospital.
- EARLE BERNARD PHELPS *Professor of Sanitary Science*
B.S., Massachusetts Institute of Technology, 1899.
- JOHN FRANKLIN RALSTON *Instructor in Dentistry*
D.D.S., Marion Sims Dental College, 1903.
- FRANK ELMER RIAN *Instructor in Dentistry*
D.D.S., Buffalo, 1905.
- WILLIAM MITCHELL ROGERS *Instructor in Anatomy*
B.S., Georgia, 1921; Ph.D., Cornell, 1926.
- THEODOR ROSEBURY *Instructor in Bacteriology*
D.D.S., Pennsylvania, 1928.
- BENJAMIN SALZER *Instructor in Neurology*
M.D., Zurich, 1911.
- CARL HENRY SCHOOFF *Instructor in Dentistry*
D.D.S., Columbia, 1927.
- JOSEPH SCHROFF *Associate Professor of Dentistry*
B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
Attending Dental Surgeon, Presbyterian Hospital; Oral Surgeon, O.P.D., Mt. Sinai Hospital; Oral Surgeon, German Polyclinic; Consulting Oral Surgeon, Jewish Memorial Hospital.
- ERNEST LYMAN SCOTT *Associate Professor of Physiology*
B.S., Ohio Wesleyan, 1902; M.S., Chicago, 1911; Ph.D., Columbia, 1914.

- ALBIN ROBERT SEIDEL *Instructor in Dentistry*
D.M.D., Tufts, 1928.
- AURA EDWARD SEVERINGHAUS *Assistant Professor of Anatomy*
B.S., Columbia, 1916; A.M., 1920; Ph.D., 1929.
- HARRY H. SHAPIRO *Instructor in Anatomy*
D.M.D., Tufts, 1918.
Attending Dentist, Cornwall Hospital.
- HANS SMETANA *Assistant Professor of Pathology*
Gymnasium, Roemerstadt, Moravia; Matura, 1912; M.D., Vienna, 1922.
Assistant Attending Pathologist, Presbyterian Hospital.
- ADELAIDE ROSS SMITH *Associate in Medicine in Industrial Hygiene*
A.B., Wellesley, 1916; M.D., Cornell, 1921.
- GILBERT PERCIVAL SMITH *Instructor in Dentistry*
D.D.S., Minnesota, 1927.
- PHILIP EDWARD SMITH *Professor of Anatomy*
B.S., Pomona, 1908; Cornell, 1910; Ph.D., 1912.
Associate Consultant, Anatomy, Presbyterian Hospital.
- MEYER RUSSELL STEIN *Instructor in Dentistry*
D.D.S., New York University, 1927.
- ELIAS L. STERN *Instructor in Anatomy*
B.S., Columbia, 1920; M.D., 1922.
Adjunct Surgeon, Sydenham Hospital; Chief of Surgical Dispensary, Sydenham Hospital;
Clinical Assistant Surgeon, Mt. Sinai Dispensary.
- FERDINAND A. STEWART *Instructor in Dentistry*
A.B., Pennsylvania, 1921; D.D.S., 1924.
- LEWIS RIDDELL STOWE *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1916.
- OLIVER SMITH STRONG *Professor of Neurology and Neurohistology*
A.B., Princeton, 1886; A.M., Columbia, 1892; Ph.D., 1896.
Consultant (Neuropathology), Department of Neurology, Vanderbilt Clinic.
- HARRY STRUSSER *Special Lecturer in Community Dentistry*
D.D.S., New York College of Dentistry, 1918.
Chief of Division of Dental Service, Department of Health of the City of New York.
- ARTHUR CRANSTON TOTTEN *Instructor in Dentistry*
D.D.S., Pennsylvania, 1926; P.G., 1927.
- MARTIN CHARLES TRACY *Assistant Professor of Dentistry*
D.M.D., Tufts, 1900.
Attending Dental Surgeon, Presbyterian Hospital.

- JOSEPH VICTOR *Instructor in Pathology*
 B.S., College of the City of New York, 1926; M.D., Rochester, 1930.
 Second Assistant Attending Pathologist, Presbyterian Hospital.
- GENEVA HASTINGS WALLS *Instructor in Dentistry*
 D.H., Forsyth Dental Infirmary, 1917.
- PAUL BENJAMIN WIBERG *Assistant Professor of Dentistry*
 D.D.S., Minnesota, 1920.
- HARRY ALLEN YOUNG *Assistant Professor of Dentistry*
 D.D.S., Indiana, 1919.
- MORRIS A. ZIMMER *Instructor in Dentistry*
 D.D.S., New York University, 1918.
- DANIEL E. ZISKIN *Assistant Professor of Dentistry*
 D.D.S., Minnesota, 1917.
- RAYMUND L. ZWEMER *Assistant Professor of Anatomy*
 A.B., Hope, 1923; Ph.D., Yale, 1926.

CLINICAL STAFF

- | | |
|--------------------------------|-------------------------------------|
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| | GEORGE H. VERNON, D.D.S. |

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D.Sc.*Assistant Visiting Oral Surgeon*

DOUGLAS PARKER, M.D., D.D.S.

Attending Dental Surgeons

ADOLPH BERGER, D.D.S.

WILLIAM B. DUNNING, D.D.S.

ISADOR HIRSCHFELD, D.D.S.

HOUGHTON HOLLIDAY, D.D.S.

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MARTIN C. TRACY, D.M.D.

Assistant Attending Dental Surgeons

WILLIAM W. BAADE, D.D.S.

ALBIN R. SEIDEL, D.M.D.

Assistant Dental Surgeons

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ROSE COHEN, D.D.S.

REUBEN LENZER, D.D.S.

JOHN F. RALSTON, D.D.S.

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HENRY S. DUNNING, M.D., D.D.S.

*Dental Internes*ROBERT T. BELL, D.M.D.¹

FRANK E. DIXON, D.D.S.

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DIAMOND¹ Deceased, March 3, 1932.

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Professor ROWE (*Chairman*), Professors HARTMAN, McBEATH, McCaffrey,
and Dr. MOORE

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Professor ROWE (*Chairman*), Professors BODECKER, CRAWFORD, HARTMAN,
HOLLIDAY, and LEONARD

The Dean is a member *ex officio* of all committees

THE COMMONWEALTH FUND GRANT FOR THE STUDY OF THE CAUSE OF
DENTAL CARIES

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MRS. GRACE BAKER	<i>Assistant to the Registrar</i>

SCHOOL OF DENTAL AND ORAL SURGERY

GENERAL INFORMATION

HISTORICAL STATEMENT

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the School became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large buildings, at 302-306 East 35th Street, and 309-315 East 34th Street in which the School was housed up to the time of moving into the Medical Center.

In September, 1928, the School was moved to the Columbia University-Presbyterian Hospital Medical Center where it occupies the three upper floors of the Vanderbilt Clinic wing, giving a net floor area of 40,000 square feet. The College of Physicians and Surgeons in which the fundamental medical science subjects are given adjoins it, the halls of the two being continuous. In adjacent wings, the halls of which are continuous with those of the School, the wards and out-patient departments of the Presbyterian and associated hospitals are located, thus giving the closest possible contact and association with all branches of health service. The Dental School Clinic includes as one of its functions the dental care of the patients of the Medical Center hospitals.

It is the purpose of the Faculty to maintain dental education in this school on the same footing as that of other branches of health service. Three years of college work including certain specified subjects are required for admission and of those who have fulfilled the requirements a careful selection is made on the basis of their fitness for the practice of dentistry. The course of dentistry covers four years leading to the degree of Doctor of Dental Surgery. The greater part of the first two years of the curriculum is taken in the fundamental departments of the College of Physicians and Surgeons.

STUDENTS

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University may at the

same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate or proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

GRADUATION

Diplomas are issued only at Commencement and in February and October, (for A.M. candidates at Commencement and in February and December, or, in the case of the Ph.D. degree, upon the completion of the requirements, also in August for the degree of D.D.S. and for the B.S. in Optometry).

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years will be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean. Students withdrawing are required to notify the Registrar immediately.

The Dean of the school or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

Letters requesting more detailed information than is contained in this Announcement, and all correspondence regarding admission, should be addressed to the Dean, School of Dental and Oral Surgery, 630 West 168th Street.

LIBRARY

A combined medical-dental library with spacious reading room containing approximately 53,000 volumes and about 30,000 pamphlets occupies a part of three lower stories of the main administration building of the Medical Center and is open to students from 9 a. m. to 10 p. m., on week days. 103d St. 105th St.

This library has been formed through the consolidation of departmental libraries to serve more adequately the needs of students, internes and teachers of the combined schools and Presbyterian Hospital Unit. It has a seating capacity for 250 readers.

The periodical room on the upper floor is especially equipped to foster and encourage research work. Here are received 300 current journals, and nearby will be shelved the bound volumes of the most important journals covering a period of approximately ten years. In addition, the more important reference works, the systems of medicine and surgery, some of the German *Handbücher* and other bibliographical tools will be available for intensive research work.

The book collections are systematically arranged under the Library of Congress classification, and the serials shelved in a strictly alphabetical order, so as to insure quick service and prompt delivery over the loan desk.

The dictionary catalogue in the lobby, with its author, subject and title entries, should be freely consulted as a guide and index to the subject matter in the combined collections of the library.

UNIVERSITY PRIVILEGES

As the School of Dental and Oral Surgery is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of other departments of the University. They may reside in the University dormitories at Morningside Heights, and are eligible to membership in the various social and other organizations of the student body.

University Libraries. The libraries on Morningside Heights are open to all students of dentistry, and books may be borrowed for home use. They include collections on anatomy, biochemistry, public health, nursing, and other subjects related to dentistry, and supplement the special collections available in the College of Physicians and Surgeons, and in the New York Academy of Medicine, Fifth Avenue at 103d Street. The library of the College of Pharmacy, 115 West 68th Street, is also open to students in the School of Dentistry.

University Gymnasium. The Gymnasium is situated on Morningside Heights, and is open daily during the academic year, except on Sundays and legal holidays, from 8:30 a. m. to 7 p. m. (Saturdays, 5 p. m.). It is closed for the entire day only on Thanksgiving, Christmas, New Year's, and Good Friday; on all other holidays it is open from 2 to 6 p. m. Instructors are on the floor at all times when the Gymnasium is open. Students of the School of Dentistry may enjoy its privileges and have the use of the Gymnasium and baths and a private locker.

The student is entitled also to a physical examination by the University Medical Officer, who, on the basis of such an examination, will give advice as to the kind and amount of exercise best adapted to the needs of each man. The Gymnasium is large, thoroughly equipped, and under the immediate supervision of the University Medical Officer, a professor in the Department of Physical Education. The Medical Officer is assisted by a corps of able instructors.

Employment. The Appointments Office located in Earl Hall is the central placement department of the University through which students and graduates are referred to suitable positions.

It is the function of the Appointments Office to secure for competent men and women students who need to work their way through the University, the opportunity to earn enough for their partial support. It is the experience of the office, however, that it is practically impossible for dental students to undertake outside part-time work during the academic year without seriously jeopardizing their school work and their health. The office consequently does not encourage students of the School of Dental and Oral Surgery to seek employment during the academic year, although it assists competent men and women to secure suitable and remunerative work during the summer. In general the office advises students who are unable to pay the complete cost of attending the School to withdraw for a year in order to earn the money necessary to enable them to give undivided attention to their academic work.

MEDICAL ATTENDANCE

The University Medical Officer, Dr. W. H. McCASTLINE, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, should be reported to him promptly. The Medical Officer and the members of his staff hold office hours daily in Earl Hall for the medical care of students and members of the staff.

RESIDENCE HALLS

The Residence Halls provide easy access to libraries and laboratories, comfortable accommodations in an environment conducive to academic work, and serve as a center for campus life.

There are four Residence Halls for men on South Quadrangle: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Quadrangle, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls for both men and women are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Intercollegiate Cosmopolitan Club, is maintained for men and women students from foreign lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Fees for the academic year range from \$185 to \$325. Inquiries should be addressed to Committee on Admissions, International House, 500 Riverside Drive.

THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

KING'S CROWN HOTEL

The King's Crown Hotel, located at 420 West 116th Street, in close proximity to the University, provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and grillroom for all men students in John Jay Hall. In addition the University maintains the following dining rooms (cafeteria service): The Commons (men and women), University Hall; Barnard Hall Lunch Room (women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, West 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is available for student receptions and dances. The lower floor, entrance from Broadway, is occupied by the office of the University Medical Officer.

UNIVERSITY BOOKSTORE

The official University Bookstore is situated in the Journalism building, with entrances at the southeast corner of 116th Street and Broadway, and from South Quadrangle between Furnald Hall and Journalism. Books and other supplies are sold at discounts from the usual prices. The store is open on week-days, from 8 a. m. to 8 p. m.; Saturdays, from 8 a. m. to 6 p. m.; during the first days of each session, until 10 p. m. The store maintains a theater and concert ticket service, a travel bureau, telegraph service, and other services, with substantial savings to Columbia students.

REQUIREMENTS FOR ADMISSION

ADMISSION TO FIRST YEAR OF THE SCHOOL OF DENTAL AND ORAL SURGERY

Eligibility. No definite information regarding eligibility can be given until the completed application blank has been filed by the applicant at the Office of the Dean.

Application. It is desirable that candidates make application before June 1, as on or about June 15 the Committee on Admissions will act upon all applications received up to that date. Application blanks will be furnished by the Dean's Office of the School of Dental and Oral Surgery.

Beginning September, 1932, the minimum requirement for admission to the first year class is attendance for three full years at an acceptable college of arts and sciences, which must include successful completion of courses required for the dental student qualifying certificate as mentioned below.

Preference will be given in the selection of students to those who present to the Committee on Admissions evidence of high achievement in their college education and who are most likely to succeed in dentistry, rather than to those who present the largest number of course credits or those who have limited their preparation to the premedical sciences.

The New York State Board of Regents includes the following subjects in the minimum requirements for the qualifying certificate:

English composition and literature, 6 semester hours.

Physics, 6 semester hours.

Biology, 6 semester hours.

Chemistry (including an approved course in organic chemistry), 12 semester hours.

Inasmuch as an understanding of the medical sciences is based upon the knowledge of the underlying sciences of chemistry, physics, and biology, students are urged, as far as time permits, to take additional courses in quantitative, qualitative, physical, and organic chemistry, physics, comparative anatomy, and other advanced courses in biology, as well as courses in mathematics, German and French, sociology, history, and other subjects of general cultural and scientific value. Courses in shop practice and drawing are also of value in the more technical phases of dentistry in giving the muscle and eye coördination so necessary and so difficult to attain in later years.

Note. A point or semester hour is the equivalent of one hour of lecture or recitation or of two hours of laboratory work per week, per semester. Suitable laboratory work must be included in each of the courses in science.

The following credentials must be submitted or mailed to the Dean's office, School of Dental and Oral Surgery.

1. Application for admission (blank furnished by this school on request). Transcript of courses taken, or to be taken, must be entered on this blank.
2. An official transcript of college record, showing entrance credits, courses

taken, and grades received. This is not required until the courses offered for admission are completed, unless specific request for it is previously made.

3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must show only head and neck.)

The following must be mailed to New York State Department of Education, Albany, New York.

1. An application for qualifying certificate (blank furnished by the School or New York State Department of Education, Albany, New York). This is required by the New York State Department of Education and is forwarded to them with the one dollar fee in requesting issuance of dental student qualifying certificate for the applicant.

2. Official transcripts of high school records are to be furnished *only* upon special request of the School.

3. In addition to the above credentials the applicant must furnish a fee of one dollar (check or money order drawn to order of the University of the State of New York, and forwarded with application for qualifying certificate) covering cost of issuance of a dental student qualifying certificate.

No letters of recommendation are desired unless asked for.

A dental student qualifying certificate, which is the official evidence of the fulfillment of the requirements of the state, must be authorized before the student begins the first annual dental course counting towards a dental degree. This precludes the admission of the conditioned students.

Owing to the limited number of students who can be accommodated, completion of the requirements for entrance does not guarantee admission. The entire pre-dental record of each student is carefully examined by the Committee on Admissions in order that those who are adjudged most capable of meeting the exacting demands of the course and of the profession of dentistry may be selected. Acceptance is based on grounds of character and health as well as on academic requirements.

In order to make the best selection from among the candidates who are eligible for admission all applicants who are eligible will be requested to report at the Dean's office for a personal interview some time prior to the final action of the Committee on Admissions. Those who remain on the eligible list after a personal interview will be given an examination as to mechanical ability and manual dexterity. This test will be given at various times during the year. It will consist of exercises in mechanical and free hand drawing, metal filing, and moulding in plastic material, and will be conducted by the technic teachers in the School.

Fee on Admission. A fee of \$10 is payable by the applicant within ten days of his receipt of notice that he has been accepted for admission. A check to the order of Columbia University should be returned by the accepted applicant with notice that he intends to matriculate. If the applicant registers within the prescribed registration dates in September, this fee will be credited as the University fee. If he fails to register the fee lapses and will be used by the University to meet the cost of its administrative and overhead charges in caring for applicants who do not finally register.

Admission of Foreign Students. The credentials submitted must contain evi-

dence of the satisfactory completion of the equivalent to the stated entrance requirements.

All applicants for a dental student qualifying certificate on credentials from foreign countries (other than those in which English is the language of the people) must pass a special examination in English. This examination is conducted by the State Department of Education. Information regarding this and the dates on which it is given can be obtained from the New York State Department of Education, Albany, New York.

Evidence of authenticity and the right of possession as well as the original credentials and authenticated translation of the same are required by the State Department of Education and by this office.

If applicant resides in a foreign country, the credentials as outlined below should be prepared and submitted to the Dean's office, 630 West 168th Street, New York City.

If applicant resides in the United States, the credentials should be sent direct to the New York State Department of Education, Albany, N. Y. Only one copy of affidavit on "Form F" is required.

1. Original credentials from foreign schools.
2. Translations of credentials certified to be correct by a consul or notary public.
3. Affidavit fully describing the applicant's education made out (in duplicate) on blanks known as "Form F." (Blank furnished by the State Department of Education.)

In addition to above credentials the applicant must furnish a fee of one dollar by check or money order drawn to order of University of the State of New York and sent with application for qualifying certificate, covering cost of issuance of a dental student qualifying certificate.

The following credentials must be submitted at the Dean's Office, 630 West 168th Street, after a dental student qualifying certificate has been authorized.

1. Application for admission (blank furnished by this school on request).
2. Letter from the New York State Department of Education to the applicant certifying eligibility for dental student qualifying certificate.
3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must be head and neck only.)

Applicants may be required to submit to examination at the pleasure of the Faculty.

Admission of Foreign Students to Advanced Standing. Foreign students applying for admission to advanced standing must comply with the above requirements, and must, in addition to the above noted credentials, submit transcripts and translations of their dental school work, and a letter from the New York State Department of Education certifying eligibility for admission to advanced standing. They will also be required to submit to examination at the pleasure of the Faculty.

COMBINED COURSES

Combined Courses with Columbia College. Upon receiving 94 points credit, 64 of which must be for work in Columbia College, including all of the work prescribed

for the degree in Columbia College, a student may take studies in the first year of the School of Dental and Oral Surgery, provided he can satisfy the stated requirements and is accepted for admission therein, and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work.

No course may be counted toward a professional degree and at the same time be included among those which go to make up the 94 points referred to above.

Combined Course in Dentistry and Medicine. It is usually possible for a graduate of a registered medical school with the degree of Doctor of Medicine to meet the requirements of the School and receive the degree of Doctor of Dental Surgery by the satisfactory completion of a special two-year course.

Admission to Advanced Standing. Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their school of previous residence. Provided they are eligible for the dental student qualifying certificate required by the New York State Department of Education and can submit evidence of the satisfactory completion of the entrance requirements of this school, candidates who have completed, without condition, one or two years of study in a dental school registered in the state of New York including courses equivalent to those given at this school are eligible to apply for admission to the second or third years, respectively.

Owing to the lack of uniformity in the arrangement of the first and second year curricula in the various dental schools a transfer can usually be accomplished with the least adjustment at the end of the second year.

The following credentials must be submitted at the Dean's office, 630 West 168th Street:

1. Application for admission (blank provided by this school on request) completely filled out.
2. Official transcript of college record including college entrance credits should be sent in with the application blank.
3. Three unmounted photographs (size about 2 x 2 inches) of applicant, without hat. (Must be head and neck only.)
4. A properly executed oath of allegiance and application for qualifying certificate (blank provided by this school on request).
5. Official transcript of dental school record must be submitted *on completion* of courses taken.
6. A properly executed advanced standing blank, required by the state of New York (blank furnished by this school) must be executed by proper official of dental school of previous residence *on completion* of college years certified.
7. In addition to above credentials applicant must furnish a fee of one dollar, check or money order drawn to order of University of the State of New York, covering cost of issuance of the dental student qualifying certificate.

Admission to the fourth year is by special permission of the Committee on Administration and is limited to students who have the predental qualifications and have the degree of Doctor of Dental Surgery from an acceptable dental school. Applicants for admission to the fourth year must furnish these credentials in addition to the others required for advanced standing.

SUMMER SESSION

In 1932, from June 2 to August 24, a Summer Session of twelve weeks will be offered to the students who attended similar courses in the summers of 1930 and 1931, as a continuation of the regular work.

The tuition fee for this Summer Session will be one-third of the regular fee for the academic year plus the regular University fee of \$10 and a deposit fee of \$10. Registration and payment of fees should be completed not later than the first day of the Summer Session.

The optional forty-four week plan, permitting of the completion of the prescribed course in three calendar years, will not be offered to future classes.

During the above period, an optional course in operative and prosthetic clinical practice, without credit, will be offered to men who have completed the required work of the third year. The course must be continued throughout the entire Summer Session. There will be no fee for this optional course.

COURSES IN ORAL HYGIENE

The courses in oral hygiene offered by the School of Dental and Oral Surgery are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, including certain specified subjects, and the attainment of at least eighteen years of age. For full information address Professor ANNA V. HUGHES, at 630 West 168th Street.

COURSES FOR GRADUATES

The Faculty is always willing at the request of practitioners to conduct through the Extension Division short courses in any subjects in dentistry that may be desired, providing it can be done without interference with the regular routine work of the School. It is the business of the Extension Division to arrange such courses to suit the convenience in time and place of those who take and those who give the courses. The fees for such special short courses are on the basis of cost.

It is usually possible in each division of the School to accommodate two or three dentists who desire to come into the School for study and clinical practice under the regular teaching staff. The candidate for such work must be an ethical dentist recommended by his local dental society. If he desires to register for work he applies to the Dean who, in conference with the teachers concerned, passes on the application. If acceptable the candidate registers and pays a tuition fee which is proportional to the regular undergraduate year fee as the amount of work registered for is to an undergraduate year of work. Any amount of work over a minimum equaling five trimester credits may be arranged for. Such work does not lead to credit or toward a degree or certificate.

For full information address Office of the Dean, School of Dental and Oral Surgery, 630 West 168th Street, New York, N. Y.

CERTIFICATE OF PROFICIENCY

The School of Dental and Oral Surgery is authorized to grant a Certificate of Proficiency in Dentistry or in a special branch of dentistry selected by the can-

didate and approved by the School of Dental and Oral Surgery to students who have complied with the requirements stated below.

The requirements for admission shall be graduation from the School of Dental and Oral Surgery or from another acceptable school of dentistry in the United States or in a foreign country and the applicant must be a member in good standing of his national dental association. The membership requirement does not apply to students who enter within a year of graduation.

The course of study for the Certificate of Proficiency shall include not less than thirty-two points (forty-eight trimester credits) of special work in the clinical branches of dentistry not leading toward a Master's or Doctor's degree, approved by the Dean of the School of Dental and Oral Surgery.

The fee for the year's work leading to the Certificate of Proficiency is the same as for undergraduate work in the School.

Application blanks may be obtained from the office of the Dean, School of Dental and Oral Surgery, 630 West 168th Street. When application for registration is made, the candidate is passed upon by the Dean and the teachers concerned and, if accepted, registers in the regular manner.

COURSES IN ORTHODONTIA FOR GRADUATES

An organized twelve-month course has been given since 1927 to qualified graduates in dentistry who wish to prepare for specialization in orthodontia. Admission requirements include graduation from an acceptable school of dentistry, and membership in good standing in the national dental organization of the applicant's country. This membership requirement does not apply to those who enter within the year of graduation. The Certificate of Proficiency is awarded to those who satisfactorily complete the course.

For special information see the Announcement of Advanced and Graduate Courses in Dentistry, which may be obtained from the Director of the Division of Orthodontia or the Dean, School of Dental and Oral Surgery, 630 West 168th Street, New York, N. Y.

GRADUATE COURSES

Graduation from acceptable dental schools under the present curriculum of four academic years preceded by three predental college years is accepted by the Graduate Faculties of Columbia University as qualification for admission. For information regarding the curricula leading to the Master of Arts or the Doctor of Philosophy degrees in these Faculties see the Graduate Announcement.

REGISTRATION

Before attending University courses, every student must present himself at the office of the Registrar, and file a registration blank giving such information as may be required. The periods set aside for registration in each session are stated in the Academic Calendar found at the end of this Announcement. Registration at a later date is permitted only on the written permission of the Dean, satisfactory cause for the delay having been shown.

FEES

The University Statutes provide that tuition fees, the University fee, and laboratory deposits are payable semiannually in advance. No reduction is made for late registration. Registration will not be complete until such fees are paid. Checks should be drawn to the order of Columbia University and presented in person or mailed to the Office of the Bursar. Payment of fees after the last day of registration (see Academic Calendar) imposes automatically the statutory charge of \$6.00 for this privilege. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

- (a) University Fee

For all students (except those in University Extension and Summer Session), for each Winter or Spring Session or for any part thereof . . . \$10

*For students in University Extension exclusively, for a Winter or Spring Session or any part thereof, and for students in a Summer Session or any part thereof . . . \$7
- (b) Tuition Fee

For all students, per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed . . . \$10

With the proviso that the minimum fee for a Winter or Spring Session in the case of a student enrolled for ten points or more in the School of Law shall be not less than \$150, and in the case of a student enrolled for the full course in the School of Medicine or in the School of Dental and Oral Surgery not less than \$250, and in the case of a student enrolled for the full course in Oral Hygiene not less than \$150.
- (c) Fee for Application

For any degree . . . \$20

For any certificate . . . \$10
- (d) Privileges
 1. Late registration or late application for a degree or certificate or for deficiency or special examinations . . . \$6
 2. Late application for entrance examinations . . . \$1
 3. Deficiency and special examinations . . . \$3

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.
- (e) Entrance Examinations—for each series . . . \$10
- (f) Rebates
 1. The University fee and the fee for application for any degree or certificate shall not be subject to rebate.
 2. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fee shall be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a partial return of fees may be authorized by the Registrar.

*As the twelve-weeks' Summer Session in the School of Dental and Oral Surgery equals a full trimester, the University fee is \$10.

(g) Student Activities Fee

For all male students matriculated in any School of the University in which the first degree is normally granted four years after admission to college, for each Winter or Spring Session, or any part thereof \$12.50

Three-fifths of the amount received in each session on account of this fee to be expended on the maintenance of athletic activities, and two-fifths to be expended on the maintenance of non-athletic activities of students in Columbia College, provided that all such expenditures shall be subject to the authority of the President.

(h) Medical School Athletic and Recreational Fee

For all male students, per annum \$10

Male students in the graduate and professional schools will be entitled to certain privileges on payment of the student activities fee of \$12.50, for each Winter or Spring Session or any part thereof.

When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in a course, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals, beyond this allowance; and service in washing apparatus, or work by a mechanic. A deposit of \$25 will be required in the School of Dental and Oral Surgery each year to cover material and breakage in the laboratories; for each Summer Session, \$10.

Instruments. Each student is required to supply himself with a microscope of a satisfactory type and instruments as specified in the official instrument list. The purchase from the University of microscopes and instruments in original package outfits has been made compulsory, and unauthorized or incomplete equipment will not be accepted by the instructors. Dental engines are rented from the School at the rate of \$15 for the academic year, payable in advance on registration in September. Instrument cases are also rented from the School, the fee of \$15 for two cases being deducted from the breakage fee at the end of the year.

Supplies. All technic material and regular supplies *must* be purchased from the University upon an order from the instructor. The students will not be allowed to purchase more than is required to complete a case. The quantity and quality are selected with a view to the best possible results and conservation of the students' best interests.

Lockers. Each student on entering will be required to supply himself with one combination lock as prescribed by the School. Locks are one dollar each.

ESTIMATED EXPENSES FOR ACADEMIC YEAR

Following is an itemized estimate of expenses of attendance in the School of Dental and Oral Surgery for a full academic year. The tuition, room, board, books, instruments, and laundry figures are based upon actual prevailing rates. The cost of clothes, travel, and incidentals is of course variable, depending upon the tastes and financial situation of the individual, but the figures quoted have been arrived at after a careful study of present conditions.

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$545	\$545
Room (36 weeks)	212	170
Board (36 weeks)	366	288
Books	40	28
Instruments (See Note)	120	100
Laundry	50	34
Additional expenses, including clothing, travel, charity, organizations, and sundries	300	200
	<hr/> \$1633	<hr/> \$1365

The total cost of instruments for the four-year course is from \$400 to \$480, an average yearly cost of \$100 to \$120. It should be noted that the instruments for the first two years cost about \$300.

Room prices are based on rates in the University Residence Halls. Group assignments at \$4 a week are in operation in the Men's Residence Halls. Prices in the neighboring rooming houses are slightly higher.

Medical advice and treatment of minor ailments are rendered free of charge by the University Medical Officer.

Many students reduce their expenses by sending their laundry home weekly via parcel post.

EXAMINATIONS AND STANDING

Final examinations are held at the end of the course, and reexaminations for students with conditions are held within one month after the close of the regular academic year.

The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory, reexamination required; Inc., incomplete, completed work must be submitted within the time limit set by the instructor. One reexamination will be allowed in a course graded F; if the examination is passed the grade will be a C.

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examination in all the subjects of the entire course.

PROMOTIONS

Promotion will be granted to such students as have received passing grades in all subjects.

A student who has failed in any one of his courses is not allowed to go on with

his class until he has removed that failure to the satisfaction of the head of the department.

A student who has failed two courses in the first year may be allowed re-examination in the failed courses provided that the failures do not comprise any two out of the three following courses: gross anatomy, physiology, and biological chemistry.

A student who has failed in two courses of the second, third, or fourth years may be allowed re-examination in the two failed courses provided the failed subjects do not include operative dentistry, prosthetic dentistry, or crown and bridge work, and that the total hours of the two courses failed do not exceed one third of the total course hours for that year.

Students who receive conditions or failures amounting to one-third or more of the year's work must repeat the work of the entire year.

A student may repeat an entire year only once during his dental course and may not repeat any other year later, unless the Faculty of the School votes to suspend this rule on recommendation of the class Faculty under which the student has been working.

The class Faculties have general supervision of students' work and the application of these regulations to individual cases.

The Faculty reserves the right to amend the schedule of studies from time to time at its discretion, without further notice.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years or their equivalent in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dental and Oral Surgery.

LICENSE TO PRACTICE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address the Chief of Professional Examinations Bureau, New York State Department of Education, Albany, N. Y.

All requirements for admission to the examinations should be completed at least fifteen days before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) physiology and hygiene, (3) chemistry and metallurgy, (4) oral surgery and pathology, (5) operative dentistry, (6) operative dentistry—practical, (7) prosthetic dentistry, (8) prosthetic dentistry—practical, (9) therapeutics and materia medica, (10) histology. The minimum standing required in each subject is seventy-five per cent.

SCHOLARSHIPS

Beginning in the year 1931-1932 three scholarships of tuition value to the School of Dental and Oral Surgery, to be awarded annually, were made available. These scholarships are open to students from outside the metropolitan area whose records of scholarship and special fitness for dentistry make them particularly desirable to the School.

EWELL PRIZE

A prize to be known as the Ella Maria Ewell Medal will be awarded annually to that student of the School of Dental and Oral Surgery who may, in the judgment of the Faculty, be most proficient in some subject of dentistry. The branch of dentistry for which the award is made will be determined by the executors of the will of Glover C. Beckwith-Ewell.

THE ASSOCIATION OF THE ALUMNI OF THE SCHOOL OF DENTAL AND ORAL SURGERY

Officers

President, JOSEPH R. HORN, D.D.S.

Vice-President, JAMES DUNNING, A.B., D.D.S.

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Delegates to Board of Governors of Columbia Alumni Federation, Drs. JOSEPH SCHROFF, JOSEPH R. HORN, and S. N. ROSENSTEIN.

Membership. Any graduate, former student, member of the Faculty or administrative officer of the School of Dental and Oral Surgery is eligible to membership in the Association of the Alumni of the School of Dental and Oral Surgery of Columbia University.

COURSE OF STUDIES

For purposes of instruction the work of each year is scheduled in three trimesters of ten weeks each from September to May. These are designated as First, Second, and Third, and in 1932-1933 begin on September 29, December 10, and March 6, respectively. The twelve-weeks' Summer Session in 1932 begins June 2 and ends August 24. Registration and collection of fees for the regular academic year are administered in accordance with the University Academic Calendar in September and February.

Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., in their first and second years. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years, and to graduates in dentistry.

Following the completion of a certain proportion of the work of the fourth year, qualified students may elect to continue, supplement, or vary the work done in the prescribed courses upon nomination by the head of the department and with permission of the Class Faculty. The student may select the elective he wishes to take and register the choice with the chairman of the Curriculum Committee, who will arrange for the time and place of meeting. As in all other courses, students will be held responsible for attendance and the successful passing of examinations.

SUMMARY OF STUDIES

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

The following outline, drawn up from the point of view of the student and covering the four years' study, shows the work required of a candidate for the degree of Doctor of Dental Surgery. The unit of credit used is the trimester credit which signifies approximately three academic hours of work a week for one trimester of ten weeks. For classroom work this means one hour in class a week, each requiring an average of two hours of home work. For laboratory or clinical work requiring no outside study it represents three hours of work a week in the School. For a detailed statement of the content of each course, and other questions of detail, the student is referred to the departmental statements which follow.

The schedules of required work hours are subject to change at the pleasure of the Faculty.

CURRICULUM

SUBJECT	CREDITS	ACADEMIC HOURS*
FRESHMAN YEAR:		
Anatomy, Gross.....	18	360
Anatomy, Microscopic.....	7	150
Anatomy, Neuro.....	4	80
Anatomy, Oral.....	3	80
Biochemistry.....	9	190
Histology, Oral.....	1	30
Physiology.....	9	190
	51	1080
SOPHOMORE YEAR:		
Anatomy, Oral.....	3	90
Bacteriology.....	7	130
Dental Materials.....	1	30
Histology, Oral.....	1	30
Operative Dentistry.....	5	150
Pathology.....	16	340
Pharmacology.....	7	130
Prophylaxis, Oral.....	2	60
Prosthetic Dentistry.....	4	120
Psychopathology.....	1	10
Radiology.....	2	40
Surgery, Oral.....	2	20
	51	1150
JUNIOR YEAR:		
Crown and Bridge.....	11	290
Dental Materials.....	1	30
Diagnosis, Oral.....	4	60
Hygiene, Oral.....	3	30
Operative Dentistry.....	11	290
Orthodontia.....	3	80
Pathology, Oral.....	5	90
Periodontia.....	1	30
Pharmacology, Applied.....	1	10
Prosthetic Dentistry.....	8	220
Surgery, Oral.....	2	40
	50	1170
SENIOR YEAR:		
Crown and Bridge.....	7	210
Dentistry for Children.....	4	100
Hygiene, Oral.....	1	30
Operative Dentistry.....	11	310
Periodontia.....	2	50
Practice of Medicine.....	7	90
Prosthetic Dentistry.....	10	280
Public Health.....	3	30
Surgery, Oral.....	3	100
Theory and Practice.....	3	30
	51	1230

* Academic hour = 50 minutes.

DEPARTMENTAL STATEMENTS

ANATOMY

Anatomy 150F—Microscopic anatomy. 15 hours a week for one trimester. First year. 7 trimester credits or 6 points. Professors P. E. SMITH, S. R. DETWILER, W. M. COPENHAVER, A. E. SEVERINGHAUS, R. L. ZWEMER, Dr. R. L. CARPENTER, and assistants.

Lectures, conferences, and laboratory.

This course is the same as the Medical School course 101F.

Anatomy 151FS—Gross anatomy. 18 hours a week for two trimesters. First year. 18 trimester credits or 12 points. Professors W. M. ROGERS, B. B. GALLAUDET, and assistants.

Lectures, conferences, and laboratory.

This course is equivalent to the Medical School course 102FST.

BACTERIOLOGY

Bacteriology 151F—General medical bacteriology and immunology. 9 hours a week for one trimester. Second year. 5 trimester credits or 3 points. Dr. T. ROSEBURY, and assistant.

Lectures, conferences, and laboratory.

This course is the same as the Medical School course 101F in bacteriology up to the point of special problems.

Bacteriology 152F—Principles of epidemiology, infection, immunity, serum diagnosis and therapy. 4 hours a week for one trimester. Second year. 4 trimester credits or 3 points. Professor F. P. GAY.

Lectures given to the dental and medical students together.

BIOLOGICAL CHEMISTRY

Biochemistry 150ST—Introductory biological chemistry. 2 hours lecture and 6 hours laboratory a week in the second trimester; 2 hours lecture and 9 hours laboratory a week in the third trimester. Professor M. KARSHAN, Dr. F. KRASNOW, and assistants.

This course is equivalent to the Medical School course 101ST.

DENTISTRY

Dentistry 101—Oral anatomy. 1 hour a week for two trimesters, 6 hours a week for two trimesters and 3 hours a week for a third. First and second years. 6 trimester credits. Professor M. DIAMOND and assistants.

Lectures, recitations, and laboratory on the anatomy and development of the individual teeth and the dentures as a whole.

Dentistry 202—Dentistry for children. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor E. C. McBEATH and assistants.

Lectures and conferences on operative and preventive dental procedures for children, the handling of the child patient and the application of present knowledge of preventive dentistry to the patient.

Dentistry 203—Dentistry for children, clinic. 6 hours a week for fifteen weeks. Fourth year. 3 trimester credits. Professor E. C. McBEATH and assistants.

Dentistry 204—Dentistry for children, elective.

See Electives, page 40.

Dentistry 205—Crown and bridge technic. A total of approximately 210 hours. Third year. 7 trimester credits. Professors W. H. CRAWFORD, E. B. HOYT, and assistants.

Lectures and laboratory on the technical procedures in crown and bridge work. When the technical work is completed the work is continued as crown and bridge clinic.

Dentistry 206—Crown and bridge. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor E. B. HOYT.

Lectures on the technical procedures of crown and bridge work.

Dentistry 207—Crown and bridge. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor E. B. HOYT.

Conference course with outside reading on problems in crown and bridge work.

Dentistry 208a-b—Crown and bridge clinic. A total of 270 hours. Third and fourth years. 208a—third year; 208b—fourth year. 9 trimester credits. Professors A. T. ROWE, E. B. HOYT, W. H. CRAWFORD, and assistants.

Dentistry 209—Crown and bridge elective.

See Electives, page 40.

Dentistry 212—Oral diagnosis. 1 hour a week for three trimesters. Third year. 3 trimester credits. Professor H. J. LEONARD.

Lecture and conference course in oral examination and charting, history taking, oral diagnosis, dental X-ray interpretation, and the anatomy, physiology, and mechanics of occlusion.

Dentistry 213—Oral diagnosis. A total of 30 hours. Third year. 1 trimester credit. Dr. D. E. ZISKIN and clinical staff.

Laboratory exercises, clinical practice and demonstrations in oral examination and charting, history taking, oral diagnosis, dental X-ray interpretation and the study of dental occlusion.

Dentistry 214—Oral diagnosis elective.

See Electives, page 40.

Dentistry 115a-b—Oral histology and embryology. 3 hours a week for two trimesters. First and second years. 115a—first year; 115b—second year. 2 trimester credits. Professor C. F. BODECKER and Dr. E. APPLEBAUM.

Lectures and laboratory work on the microscopic structures of the oral tissues and the application of this knowledge to technical dentistry

Dentistry 216—Oral histology and embryology elective.

See Electives, page 40.

Dentistry 221—Oral hygiene and prophylaxis. 3 hours a week for two trimesters. Second year. 2 trimester credits. Professor A. V. HUGHES, Miss K. F. HOLLIS, and assistants.

Lectures, laboratory, and clinical work on personal dental hygiene and dental prophylactic technic.

Dentistry 222a-b—Oral hygiene. 2 hours a week for one trimester and one hour a week for another trimester. Third year. 3 trimester credits. Professor H. J. LEONARD.

Lectures and conferences on the application of bacteriology, physiology, and biochemistry to preventive dentistry. Community dentistry.

Dentistry 223—Oral hygiene. 3 hours a week for one trimester. Fourth year. 1 trimester credit. Professor H. J. LEONARD and staff.

Laboratory exercises in bacteriology, physiology, and biochemistry as applied to problems in oral hygiene.

Dentistry 224a-b—Oral hygiene elective.

See Electives, page 40.

Dentistry 226—Physical properties of dental materials. 3 hours a week for two trimesters. Third year. 2 trimester credits. Professor W. H. CRAWFORD.

Metallurgical processes and apparatus. Physical and chemical properties of the metals and other materials used in dentistry. Lectures and laboratory work.

Dentistry 227—Physical properties of dental materials elective.

See Electives, page 40.

Dentistry 131-231—Operative dentistry technic. A total of 180 hours in three trimesters. Second and third years. 131—second year; 231—third year. 6 trimester credits. Professors L. L. HARTMAN, M. BUCHBINDER, Drs. G. F. LINDIG, I. L. HUNT, JR., and assistants.

Lectures and laboratory work on operative instruments and materials, their care and uses, root canal technic and the technic of cavity preparations and fillings. When the technic is completed the work is continued as operative dentistry clinic.

Dentistry 233—Operative dentistry. 2 hours a week for two trimesters. Third year. 2 trimester credits. Professor L. L. HARTMAN.

Lectures and conferences on operative dentistry procedures.

Dentistry 134-234—Operative dentistry clinic. A total of 540 hours. Third and fourth years. 134—third year; 234—fourth year. 18 trimester credits. Professors L. L. HARTMAN, M. BUCHBINDER, Drs. G. F. LINDIG, I. L. HUNT, JR., and assistants.

Dentistry 235—Operative dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor L. L. HARTMAN.

Conference course on problems in operative dentistry.

Dentistry 239a-b—Operative dentistry elective.

See Electives, page 40.

Dentistry 241—Orthodontia. 30 hours of laboratory work. Third year. 1 trimester credit. Drs. H. U. BARBER and F. E. RIAN.

Laboratory instruction in free hand soldering, the fundamental technic of making appliances and space retainers.

Dentistry 242—Orthodontia. 1 hour of lecture per week for two trimesters and a total of 30 hours of demonstrations in the clinic. Third year. 2 trimester credits. Professor L. M. WAUGH and staff.

Orthodontic fundamentals with special emphasis on preventive orthodontia or the factors which predispose to malocclusion.

Dentistry 243a and b—Orthodontia electives.

See Electives, page 40.

Dentistry 246—Oral pathology. 1 hour a week lecture for three trimesters. 3 hours a week laboratory for two trimesters. Third year. 5 trimester credits. Professor L. R. CAHN and assistant.

Lectures, conferences and laboratory work on the pathology of the diseases of the jaws, mouth and teeth.

Dentistry 247a-b—Oral pathology electives.

See Electives, page 40.

Dentistry 251a-b—Periodontia clinic. 60 hours. 251a—third year; 251b—fourth year. 2 trimester credits. Professors W. B. DUNNING, H. J. LEONARD, I. HIRSCHFELD, and H. HOLLIDAY.

Lectures and clinical work in the diagnosis and treatment of periodontoclasia.

Dentistry 252—Periodontia. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professors H. J. LEONARD and I. HIRSCHFELD.

Lectures and conferences on the theory and practice of periodontia.

Dentistry 253a-b-c—Periodontia electives.

See Electives, page 40.

Dentistry 155-255—Prosthetic dentistry technic. A total of approximately 270 hours. Second and third years. 155—first year; 255—second year. 9 trimester credits. Professors A. T. ROWE, and H. A. YOUNG, Dr. G. P. SMITH and assistants.

Lectures and laboratory on the mechanics of denture construction. When the technic is completed, the work is continued as prosthetic dentistry clinic.

Dentistry 256—Prosthetic dentistry. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor A. T. ROWE.

Lectures and conferences on materials and principles of denture construction.

Dentistry 258a-b—Prosthetic dentistry clinic. A total of 330 hours. Third and fourth years. 258a—third year; 258b—fourth year. 11 trimester

credits. Professors A. T. ROWE, W. H. CRAWFORD, E. B. HOYT, H. A. YOUNG, Drs. F. C. KUYER, G. P. SMITH, and assistants.

Infirmery practice and demonstrations in denture construction.

Dentistry 259—Prosthetic dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor A. T. ROWE.

Conference course on fundamental problems in prosthetic dentistry given toward the end of the clinical work.

Dentistry 260—Prosthetic dentistry elective.

See Electives, page 40.

Dentistry 165—Oral radiology. 1 hour a week for one trimester. Second year. 1 trimester credit. Professor H. HOLLIDAY.

Lectures, readings, and discussions on topics relative to oral radiology.

Dentistry 266—Oral radiology elective.

See Electives, page 40.

Dentistry 267—Oral radiology practice. 15 hours. Third year. 1 trimester credit. Professor H. HOLLIDAY and assistants.

Practice in exposing, processing, and mounting dental radiographs.

Dentistry 168—Principles of surgery. 1 hour a week for two trimesters. Second year. 2 trimester credits. Professor D. PARKER.

Lectures and conferences on general surgical diseases and the principles of their treatment.

Dentistry 270—Oral surgery. 1 hour a week lecture for one trimester. Third year. 1 trimester credit. Professors D. PARKER and F. S. McCAFFREY.

Lectures and conferences on local and general anesthesia and exodontia.

Dentistry 271—Oral surgery clinic. A total of 60 hours. Third and fourth years. 2 trimester credits. Professors H. S. DUNNING, A. BERGER, D. PARKER, F. S. McCAFFREY, S. BIRENBACH, and assistants.

Clinical practice and demonstrations on local anesthesia and exodontia. Time is also assigned to observation of oral surgical operations and to an organized oral pathology clinic.

Dentistry 272—Oral surgery. 2 hours a week for two trimesters. Fourth year. 2 trimester credits. Professors H. S. DUNNING and A. BERGER.

Lectures and conferences on oral and maxillo-facial surgery.

Dentistry 273—Oral surgery. A total of 30 hours. Fourth year. No credit. Professors H. S. DUNNING, A. BERGER, D. PARKER and F. S. McCAFFREY.

Demonstration of oral and maxillo-facial lessons.

Dentistry 274—Oral surgery elective.

See Electives, page 40.

Dentistry 281—Theory and practice of dentistry. 1 hour a week for three trimesters. Fourth year. 3 trimester credits. Professors H. W. GILLET, A. OWRE, and M. C. TRACY.

A lecture and conference course including an undergraduate thesis on the history of dentistry, dental ethics, dental economics, dental jurisprudence and other subjects.

NEUROLOGY

Neurology 150—Neuro-anatomy. 2 hours of lecture and 6 hours of laboratory a week for one trimester. First year. 4 trimester credits or 3 points. Professors A. ELWYN, O. S. STRONG, Drs. B. SALZER, L. V. LYONS, and R. M. BRICKNER.

Lectures and demonstrations on the gross anatomy, structure and functions of the central nervous system. This course is equivalent to the Medical School course *Neurology 101*.

PATHOLOGY

Pathology 150FS—General and special pathology. 11 hours lecture and laboratory a week for one trimester and 15 hours a week for the second. Second year. 14 trimester credits. Professors J. W. JOBLING, H. SMETANA, and assistants.

Lectures and laboratory.

This course is equivalent to the Medical School course *Pathology 101*, and is also open to candidates for the degrees of A.M. or Ph.D.

PHARMACOLOGY

Pharmacology 150—General pharmacology. One lecture and one three-hour laboratory period in the second trimester; one lecture, two conferences and two three-hour laboratory periods in the third trimester. 7 trimester credits or 6 points. Second year. Professor C. C. LIEB, Drs. W. R. BEAVEN, S. N. BLACKBERG, and M. HUMBERT.

Lectures and laboratory. In this course the pharmacological action of drugs on man and lower animals is studied. Short courses in pharmacy and prescription writing are included.

This course is equivalent to the Medical School course *Pharmacology 101S*, the two classes being taught together for lectures. Laboratory sections and conferences are separate.

Pharmacology 250—Applied pharmacology. One hour a week for one trimester. Third year. 1 trimester credit. Dr. M. HUMBERT.

Lectures and conferences on drugs and other therapeutic agents used in dentistry.

PHYSIOLOGY

Physiology 150—Mammalian physiology. 9 hours a week for two trimesters. First year. 9 trimester credits or 10 points. Professor H. B. WILLIAMS and assistants.

Lectures, conferences and laboratory. This course is equivalent to the Medical School course *Physiology 101*, the two classes being taught together for lectures.

PRACTICE OF MEDICINE

Practice of Medicine 250—General survey of medicine. 3 hours per week for three trimesters. 9 trimester credits or 6 points. Fourth year. Professor W. W. PALMER and Drs. D. D. MOORE and N. BROWN.

Lectures, conferences and clinics covering systematically the field of general medicine.

Practice of Medicine 251—Medico-dental clinic. A total of 30 hours of clinic in three trimesters. Fourth year. 1 trimester credit. Dr. N. BROWN.

Clinics in small groups in which the dental patients are studied for systemic relationships emphasizing medical history taking.

PSYCHIATRY

Psychiatry 150T—Psychopathology. 1 hour a week for one trimester. Second year. 1 trimester credit or 1 point. Professor CHARLES I. LAMBERT.

Lectures on the structural basis of the mind; the instincts and emotions; development of the personality; social adjustment, failures in adjustment, compensatory reactions; types of abnormal behavior, emotional, neurotic and personality factors in physical illness; functional disorders with special reference to dental practice. General principles of mental hygiene.

This course is the same as the Medical School course *Psychiatry 101*.

PUBLIC HEALTH

Public Health 250—Preventive medicine and public health administration. 1 hour a week for three trimesters. Fourth year. 3 trimester credits or 2 points. Professor H. EMERSON and assistants.

This course is the same as the Medical School course, preventive medicine and *Public Health Administration 201FST*, the two classes being taught together.

ELECTIVES

After completing a certain proportion of the work of the fourth year, qualified students may choose elective work, with the consent of the head of the department and the Class Faculty.

Electives are of five general types:

1. Reading and conference courses, usually leading to the preparation of a paper on some phase of a subject.
2. Clinic courses consisting of further practice in the regular subjects of some phase of special practice.
3. Technic courses consisting of training and practice in special methods in technical dentistry.
4. Scientific laboratory courses consisting of advanced work in the scientific subjects of the dental curriculum.
5. Special researches.

The elective time may also be devoted and assigned to some one of the regular subjects, such as oral hygiene or public health, where a bit of original investigation is required to which the student would like to devote more time than the regular course provides.

It is not possible to offer all of the courses which may be listed, due to overcrowded infirmary or other reasons. In general students are expected to have completed their requirements in a subject before electing advanced work in it. Otherwise it is desired to allow the greatest freedom in elective work consistent with the regular work of the School, in order that students may start following the lines of their special interests.

Each student eligible for elective work will confer with the Chairman of the Curriculum Committee, who will arrange for time and place of meeting. Students will be held for the successful completion of elective courses, including attendance and examination.

READING AND CONFERENCE COURSES

- Dentistry 204*—Dentistry for children. Professor McBEATH.
Dentistry 209—Crown and bridge work. Professor HOYT.
Dentistry 224a—Oral hygiene. Professor LEONARD.
Dentistry 239a—Operative dentistry. Professor HARTMAN.
Dentistry 253a—Periodontia. Professor LEONARD.
Dentistry 260—Prosthetic dentistry. Professor ROWE.

CLINIC COURSES

- Dentistry 214*—Oral diagnosis. Professor ZISKIN.
Dentistry 243a—Orthodontia. Professor WAUGH.
Dentistry 253b—Periodontia. Professor LEONARD.
Dentistry 274—Oral surgery. Professor DUNNING and staff.

TECHNIC COURSES

- Dentistry 239b*—Operative technic—porcelain inlay. Dr. HUNT, JR.
Dentistry 244—Applied art. Mrs. KINGSBURY.
Dentistry 266—Radiography. Professor HOLLIDAY.

LABORATORY COURSES

- Dentistry 216*—Oral histology. Professor BODECKER.
Dentistry 247a—Oral pathology. Professor CAHN.
Dentistry 247b—Clinical pathology. Dr. BARTELS.

RESEARCH COURSES

- Dentistry 224b*—Oral hygiene. Professor LEONARD.
Dentistry 227—Physical properties of dental materials. Professor CRAWFORD.
Dentistry 243b—Orthodontia. Professor WAUGH.
Dentistry 253c—Periodontia. Professors LEONARD and HIRSCHFELD.
Special research problems in fundamental science and other dental science may be arranged with the teachers concerned.

REQUIRED TEXTBOOKS

The following list includes most of the books recommended. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York. These prices are liable to fluctuation. As a rule, the latest editions only of the textbooks should be purchased. Students are warned against buying any books until specifically advised by the departments concerned.

ANATOMY, GROSS. Cunningham, *Manual of Practical Anatomy*. Choice of Gray's *Anatomy*; Cunningham's *Textbook of Anatomy*; Piersol's *Human Anatomy*.

ANATOMY, MICROSCOPIC. Choice of Maxinow, *Textbook of Histology*; Jordan, *A Textbook of Histology*; Bailey, Strong, and Elwyn, *Textbook of Histology*; Bremer, *Textbook of Histology*.

BACTERIOLOGY. Choice of Park and Williams, *Pathogenic Micro-organisms*, \$6.50; Zinsser, *Text-book of Bacteriology*, \$7.50.

BIOCHEMISTRY. Bodansky, *Introduction to Physiological Chemistry*, \$4.00; Hawk and Bergeim, *Practical Physiological Chemistry*, \$6.50.

DENTISTRY

Anatomy, oral. Diamond, *Dental Anatomy*, \$5.00.

Children's dentistry. Mimeographed notes furnished by the Department.

Crown and bridge. Mimeographed notes furnished by the Department.

Diagnosis, oral. Mimeographed notes furnished by the Department.

Histology, oral. Bodecker, *Fundamentals of Dental Histology and Embryology*, \$6.50.

Hygiene, oral. Fones, *Mouth Hygiene*, \$5.00, or Fones, *Preventive Dentistry*, \$2.50. Mimeographed notes are also furnished by the Department.

Operative dentistry. Black, *Operative Dentistry*, Vols. 1 and 2, \$12.00. Mimeographed notes are also furnished by the Department.

Periodontia. Mimeographed notes furnished by the Department.

Physical properties of dental materials. Bureau of Standards Research Paper No. 32, United States Government Printing Office, 35 cents.

Prosthetic dentistry. Wilson, *Dental Prosthetics*, \$5.50; recommended but not required: Nichols, *Prosthetic Dentistry*; E. Kennedy, *Partial Denture Construction*.

Surgery, oral. Berger, *Principles and Technique of Oral Surgery*, \$7.00; Fischer and Reithmuller, *Local Anesthesia*, \$4.50; Blair and Ivy, *Essentials of Oral Surgery*; De Costa, *General Surgery*; Scudder, *Tumors of the Jaws*.

NEURO-ANATOMY. Elwyn and Strong, *Laboratory Course in Histology*, \$2.50; Bailey, Strong, and Elwyn, *Text Book of Histology*, \$7.00.

PHARMACOLOGY. *Useful Drugs*, \$0.60; choice of Cushny, *Pharmacology and Therapeutics*, \$6.00; Dixon, *Manual of Pharmacology*, \$7.00; Sollmann, *Manual of Pharmacology*, \$7.50.

PHYSIOLOGY. Choice of MacLeod, *Physiology and Biochemistry in Modern Medicine*; Starling, *Human Physiology*; Howell, *A Text Book of Physiology*; Martin and Weymouth, *Elements of Physiology*.

PRACTICE OF MEDICINE. Choice of Cecil, *Text Book of Medicine*, \$9.00; Osler and McCrae, *Practice of Medicine*, \$7.50.

PSYCHIATRY. White, *Introduction to the Study of the Mind*, \$2.00.

PUBLIC HEALTH. Not required, but recommended for supplementary reading. Park, *Public Health and Hygiene*; Rosenau, *Preventive Medicine*; Moore, *Public Health in the United States*; Price, *Public Health and Hygiene*.

DICTIONARY. Choice of Stedman, *Medical Dictionary*, \$7.00; Dorland, *Illustrated Medical Dictionary*, \$8.00; Gould, *The Student's Medical Dictionary*, \$2.00.

ACADEMIC CALENDAR

1932

- June 30 Thursday. Registration in Summer Session begins.
- July 2 Saturday. Last day of registration for students desiring full credit.
- July 5 Tuesday. Thirty-third Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.
- August 1 Monday. Last day for filing applications for the degrees of Master of Science, and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December.
- Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.
- August 12 Friday. Thirty-third Summer Session ends.
- September 12 Monday. Last day for filing applications for entrance examinations. The privilege of later application may be granted on payment of a fee of \$6.
- September 19 Monday. Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- September 21 Wednesday. Placement examinations required of new students admitted to Columbia College.
- September 22 Thursday. Placement examinations required of new students admitted to Columbia College.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES) FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- September 21 Wednesday, to October 1, Saturday. For University Extension students desiring credit.
- September 23 Friday, to September 28, Wednesday. For students in the School of Law, the School of Business (excepting graduate students), and Barnard College.
- September 24 Saturday, to September 28, Wednesday. For students in Education and Practical Arts and candidates for the B.S. in the School of Journalism.
- September 26 Monday, to September 28, Wednesday. For students in Columbia College, Seth Low Junior College, the School of Engineering, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 26 Monday, to October 1, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, and Public Health.

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- September 28 Wednesday. Winter Session, 179th year begins.
- September 29 Thursday. Classes begin.

The Medical and Dental Schools have a slightly different schedule of holidays, etc. Please see special calendar.

1932

- October 1 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.
 Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
 Last day for filing essays for the degree of Master of Science to be conferred in October.
- October 8 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy, and Pure Science.
- October 15 Saturday. Last day for making changes in program for students in the Faculties of Political Science, Philosophy, and Pure Science.
- October 18 Tuesday. Stated meeting of University Council.
- November 8 Tuesday. Election Day, holiday.
- November 15 Tuesday. Last day for filing essays for the degree of Master of Arts to be conferred in December.
- November 22 Tuesday. Annual Thanksgiving Service in St. Paul's Chapel.
- November 24 Thursday, to November 26, Saturday inclusive. Thanksgiving holidays.
- December 1 Thursday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February.
- December 15 Thursday. Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken at mid-year. The privilege of later application may be granted on payment of a fee of \$6.
- December 20 Tuesday. Stated meeting of University Council.
- December 21 Wednesday, to

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- January 3 Tuesday, inclusive. Christmas holidays.
- January 8 Sunday. Annual Commemoration Service in St. Paul's Chapel.
- January 25 Wednesday. Mid-year examinations begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)

FOR THE SPRING SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.

- January 24 Tuesday, to January 30, Monday. For students in the School of Medicine.
- February 2 Thursday, to February 11, Saturday. For University Extension students desiring credit.
- February 4 Saturday, to February 7, Tuesday, for all other students.
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- February 1 Wednesday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
- February 7 Tuesday. Winter Session ends.
 Last day for filing essays for the degrees of Master of Arts and Master of Science to be conferred in February.

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- February 8 Wednesday. Spring Session begins. Classes begin.
- February 11 Saturday. Last day for registration in Education and Practical Arts for students desiring full credit.
- February 13 Monday. Alumni Day. Not a University holiday.
- February 18 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy, and Pure Science.
- February 21 Tuesday. Stated meeting of University Council.
- February 22 Wednesday. Washington's Birthday, holiday.
- February 25 Saturday. Last day for making changes in program for students in the Faculties of Political Science, Philosophy, and Pure Science.
- March 1 Wednesday. Last day for filing applications for University Fellowships and University Scholarships.
Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June.
- March 10 Friday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on a payment of a fee of \$6.
- April 1 Saturday. Last day for filing applications for examination for the degrees of Doctor of Philosophy and Doctor of Law to be conferred in June.
Last day for filing Cutting Fellowship applications.
- April 13 Thursday, to April 17, Monday, inclusive. Easter holidays.
- April 15 Saturday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.
Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken in May. The privilege of later application may be granted on payment of a fee of \$6.
- April 18 Tuesday. Stated meeting of University Council.
- May 1 Monday. Last day for students in Columbia College and Seth Low Junior College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.
Last day for filing applications for scholarships in the Schools of Law, Engineering, Architecture, and Columbia College.
- May 22 Monday. Final examinations for all courses begin.
- May 23 Tuesday. Last day for filing essays for the degrees of Master of Arts and Master of Science to be conferred in June.
- May 30 Tuesday. Memorial Day, holiday.

COMMENCEMENT, JUNE 4 TO 7

- June 4 Sunday. Baccalaureate Service.
- June 5 Monday. Class Day.
- June 6 Tuesday. Conferring of Degrees.
- June 14 Wednesday. Spring Session ends.
- June 19 Monday. Entrance examinations begin.
- July 6 Thursday. Registration in Summer Session begins.
- July 8 Saturday. Last day of registration for students desiring full credit.
- July 10 Monday. Thirty-fourth Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.

1933

- August 1 Tuesday. Last day for filing applications for the degrees of Master of Science, and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December.
 Last day for filing applications for deficiency and special examinations.
 The privilege of later application may be granted on payment of a fee of \$6.
- August 18 Friday. Thirty-fourth Summer Session ends.
- September 11 Monday. Last day for filing applications for entrance examinations.
 The privilege of later application may be granted on payment of a fee of \$6.
- September 18 Examinations for entrance, advanced standing, and for deficient and debarred students begin.
- September 20 Wednesday. Placement examinations required of new students admitted to Columbia College.
- September 21 Thursday. Placement examinations required of new students admitted to Columbia College.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
 FOR THE WINTER SESSION

- The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6 except in University Extension where students may register later without credit.
- September 20 Wednesday, to September 30, Saturday. For University Extension students desiring credit.
- September 22 Friday, to September 27, Wednesday. For students in the School of Law, the School of Business (excepting graduate students), and Barnard College.
- September 23 Saturday, to September 27, Wednesday. For students in Education and Practical Arts and candidates for the B.S. in the School of Journalism.
- September 25 Monday, to September 27, Wednesday. For students in Columbia College, Seth Low Junior College, the School of Engineering, the School of Architecture, the School of Medicine, the School of Dental and Oral Surgery, the School of Library Service, Optometry, and for University Undergraduates.
- September 25 Monday, to September 30, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business, Journalism, and Public Health.

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- September 27 Wednesday. Winter Session, 180th year begins.
- September 28 Thursday. Classes begin.

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Columbia University

BULLETIN OF INFORMATION

Thirty-third Series, No. 43

July 22, 1933

ANNOUNCEMENT OF THE

SCHOOL OF DENTAL AND ORAL SURGERY

FOR THE WINTER AND SPRING SESSIONS

1933-1934

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630 WEST 168TH STREET
NEW YORK

Columbia University Bulletin of Information

Thirty-third Series, No. 43

July 22, 1933

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Reports of the President and Treasurer to the Trustees.

2. The Catalogue Number, Directory Number, and the Announcements of the several Colleges and Schools and Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P. 5,500—1933.

COMMUNICATIONS

All communications regarding the School of Dental and Oral Surgery, application for admission, and appointments for personal interviews should be addressed to The School of Dental and Oral Surgery, 630 West 168th Street; telephone Billings 5-6000.

Columbia University

in the City of New York

ANNOUNCEMENT OF THE

SCHOOL OF DENTAL AND ORAL SURGERY

FOR THE WINTER AND SPRING SESSIONS

1933-1934



630 WEST 168TH STREET
NEW YORK

THE SCHOOL OF DENTAL AND ORAL SURGERY

OFFICERS OF THE FACULTY

- NICHOLAS MURRAY BUTLER, LL.D. (Cantab.), D.Litt. (Oxon), Hon.D. (Paris)
President of the University
- WILLARD COLE RAPPLEYE, A.M., M.D. *Acting Dean*
- ARTHUR TAYLOR ROWE, D.D.S. . . *Associate Dean and Professor of Dentistry*

FACULTY

- ADOLPH BERGER *William Carr Professor of Oral Surgery*
D.D.S., New York College of Dentistry, 1909; F.A.C.D., 1927.
Oral Surgeon, Beth Israel Hospital, Hospital for Joint Diseases; Attending Dental Surgeon, Presbyterian Hospital.
- CHARLES FRANCIS BODECKER *Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1925.
- HANS THACHER CLARKE *Professor of Biological Chemistry*
B.Sc., London, 1908; D.Sc., 1913.
Consultant in Biological Chemistry, Presbyterian Hospital.
- SAMUEL RANDALL DETWILER *Professor of Anatomy*
Ph.B., Yale, 1914; A.M., 1916; Ph.D., 1918; M.Sc., 1931.
Consultant in Anatomy, Presbyterian Hospital.
- HENRY SAGE DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1904; M.D., Columbia, 1911; B.S., New York University, 1915; F.A.C.S., 1924.
Attending Oral Surgeon, Vanderbilt Clinic, New York Hospital, Presbyterian Hospital, Fifth Avenue Hospital, Knickerbocker Hospital, Nassau Hospital, Broad Street Hospital, Vassar Hospital, Babies' Hospital, Sloane Hospital; Consulting Oral Surgeon, Manhattan Eye, Ear, and Throat Hospital, St. Luke's Hospital, Roosevelt Hospital and St. Vincent's Hospital, Post-Graduate Hospital, Port Chester Allied Hospitals, North Hudson Hospital, Hackensack General Hospital.
- WILLIAM BAILEY DUNNING *Professor of Dentistry*
D.D.S., New York College of Dentistry, 1895; F.A.C.D., 1928.
Attending Dental Surgeon, Presbyterian Hospital; Director of the Department of Dentistry, New York Orthopedic Dispensary and Hospital.
- FREDERICK PARKER GAY *Professor of Bacteriology*
A.B., Harvard, 1897; M.D., Johns Hopkins, 1901; D.Sc., George Washington, 1932;
Commander of the Order of the Crown of Belgium.
Bacteriologist, Presbyterian Hospital.
- HENRY WEBSTER GILLET *Professor of Dentistry*
D.M.D., Harvard, 1885.
Member, Dental Advisory Board, Department of Health, New York City.
- LEROY LEO HARTMAN *Professor of Dentistry*
D.D.S., Northwestern, 1913.
Attending Dental Surgeon, Presbyterian Hospital.

- MILO HELLMAN *Professor of Dentistry*
D.D.S., Pennsylvania, 1905.
- ANNA VERONICA HUGHES *Professor of Dentistry and in Charge
of Courses in Oral Hygiene*
D.M.D., Tufts, 1909.
Member, Dental Advisory Board, Department of Health, New York City.
- JAMES WESLEY JOBLING *Professor of Pathology*
M.D., Tennessee Medical, 1897.
Pathological Director, Presbyterian Hospital; Consulting Pathologist, Sloane Hospital.
- HAROLD JUDSON LEONARD *Professor of Dentistry*
D.D.S., Minnesota, 1912; A.B., 1915.
Secretary of the Faculty; Director of Dental Service and Attending Dental Surgeon, Presbyterian Hospital.
- CHARLES CHRISTIAN LIEB *Hosack Professor of Pharmacology*
A.B., Columbia, 1902; M.D., 1906.
Consultant in Pharmacology, Presbyterian Hospital, Mount Sinai Hospital.
- *ALFRED OWRE *Dean and Professor of Dentistry*
D.M.D., Minnesota, 1894; A.B., 1910; M.D. and C.M., Hamline, 1895; Sc.D., Columbia, 1929.
Consultant in Dentistry, Presbyterian Hospital; Member, Dental Advisory Board, Department of Health, New York City.
- WILLARD COLE RAPPLEYE *Acting Dean and Dean of the College of
Physicians and Surgeons*
A.B., Illinois, 1915; M.D., Harvard, 1918; A.M., Yale, 1922.
- ARTHUR TAYLOR ROWE *Associate Dean and Professor of Dentistry*
D.D.S., Minnesota, 1906.
Attending Dental Surgeon, Presbyterian Hospital.
- LEUMAN MAURICE WAUGH *Professor of Dentistry*
D.D.S., Buffalo, 1900; F.A.C.D., 1922.
Consultant in Orthodontia, New York Orthopedic Dispensary and Hospital, New York
Infirmary for Women and Children; Member, Dental Advisory Board, Department of Health,
New York City.
- HORATIO BURT WILLIAMS *Dalton Professor of Physiology*
A.B., Syracuse, 1900; M.D., 1905; Sc.D., 1925.
Consultant in Physiology, Presbyterian Hospital.

OTHER OFFICERS OF INSTRUCTION

- EDMUND APPLEBAUM *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1922.
- HENRY ULYSSES BARBER, JR. *Instructor in Dentistry*
D.D.S., Pennsylvania, 1916.
- HENRY ARTHUR BARTELS *Instructor in Dentistry*
B.S., Rhode Island State, 1917; B.S., Columbia, 1925; D.D.S., 1927.
*On leave of absence beginning March 1, 1933.

- WALTER REGINALD BEAVEN *Instructor in Pharmacology*
D.D.S., Columbia, 1926.
- SAMUEL BIRENBACH *Instructor in Dentistry*
D.D.S., New York College of Dentistry, 1917.
Visiting Oral Surgeon, Morrisania Hospital.
- SOLON NATHANIEL BLACKBERG *Instructor in Pharmacology*
D.V.M., Cornell, 1918; B.S., Texas Agricultural and Mechanical, 1926; Ph.D., Tulane, 1928.
- RICHARD M. BRICKNER *Associate in Neurology*
B.S., Columbia, 1921; M.D., 1923.
- MAURICE BUCHBINDER *Assistant Professor of Dentistry*
B.S., College of the City of New York, 1917; D.D.S., Columbia, 1925.
- LESTER RICHARD CAHN *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1917.
Associate Attending Dental Surgeon, Presbyterian Hospital.
- GEORGE SAMUEL CALLAWAY *Instructor in Dentistry*
D.D.S., Pennsylvania, 1923.
Attending Orthodontist, Fifth Avenue Hospital, Polyclinic Hospital.
- RUSSELL LEGRAND CARPENTER *Associate in Anatomy*
B.S., Tufts, 1924; Ph.D., Harvard, 1928.
- KENNETH FULTON CHASE *Instructor in Dentistry*
D.M.D., Tufts, 1928.
Attending Dental Surgeon, New York Eye and Ear Infirmary; Clinical Assistant, Roosevelt Hospital.
- CLARENCE O. CHENEY *Professor of Psychiatry*
A.B., Columbia, 1908; M.D., 1911.
Director, New York State Psychiatric Institute and Hospital.
- KENNETH STEWART COLE *Assistant Professor of Physiology*
A.B., Oberlin, 1922; Ph.D., Cornell, 1926.
- WILFRED MONROE COPENHAVER *Assistant Professor of Anatomy*
A.B., Western Maryland, 1921; Ph.D., Yale, 1925.
- WILLIAM HOPKINS CRAWFORD *Associate Professor of Dentistry*
D.D.S., Minnesota, 1923.
- MOSES DIAMOND *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1914.
- LOUIS BASIL DOTTI *Assistant in Physiology*
B.S., Columbia, 1929; A.M., 1931.
- WALTER F. DUGGAN *Instructor in Physiology*
A.B., Columbia, 1923; A.M., 1925; M.D., 1927.
- ADOLPH ELWYN *Assistant Professor of Neurology*
B.S., Columbia, 1915; A.M., 1917.

- HAVEN EMERSON *Professor of Public Health Practice*
A.B., Harvard, 1896; A.M., Columbia, 1899; M.D., 1899.
- ABRAHAM FIRESTONE *Instructor in Anatomy*
A.B., College of the City of New York, 1920; M.D., Columbia, 1924.
Assistant Urologist, Mount Sinai Hospital.
- FREDERICK BONNER FLINN *Associate Professor of Physiology in
Industrial Hygiene*
A.B., Johns Hopkins, 1900; Ph.D., Columbia, 1923.
- JOSEPH OCTAVIUS FOURNIER *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1913.
- BERN BUDD GALLAUDET *Associate Professor of Anatomy*
A.B., Trinity, 1880; A.M., 1883; M.D., Columbia, 1884.
Consulting Surgeon, Bellevue Hospital.
- EDWARD SETTLE GODFREY, JR. *Clinical Professor of Epidemiology*
M.D., Virginia, 1900.
- LEO JOSEPH HAHN *Instructor in Physiology*
Ph.D., Yale, 1914; M.D., 1918.
- ISADOR HIRSCHFELD *Associate Professor of Dentistry*
D.D.S., New York College of Dentistry, 1902.
Associate Attending Dental Surgeon, Presbyterian Hospital; Associate Oral and Dental
Surgeon, New York Hospital for Joint Diseases; Chief, Periodontia Department, Beth Israel
Hospital.
- FRANKLIN HOLLANDER *Research Associate in Dentistry*
B.S., Columbia, 1919; Ph.D., 1923.
- HOUGHTON HOLLIDAY *Assistant Professor of Dentistry*
A.B., Minnesota, 1915; D.D.S., 1917.
Assistant Attending Dental Surgeon, Presbyterian Hospital.
- KATHERINE FLORENCE HOLLIS *Instructor in Dentistry*
Certificate in Oral Hygiene, Columbia, 1921.
- EARL BANKS HOYT *Assistant Professor of Dentistry*
D.D.S., Pennsylvania, 1918.
- MARY CAROLINE HRUBETZ *Instructor in Physiology and Pharmacology*
A.B., California, 1920; A.M., Columbia, 1928.
- MELVILLE HUMBERT *Instructor in Pharmacology*
A.B., Columbia, 1923; B.S., 1924; D.D.S., 1926.
- IRVIN L. HUNT, JR. *Instructor in Dentistry*
D.D.S., Pennsylvania, 1929.
- MAXWELL KARSHAN *Associate Professor of Biological Chemistry*
B.S., College of the City of New York, 1917; A.M., Columbia, 1920; Ph.D., 1925.
- EDWARD G. KELLEY *Assistant in Biological Chemistry*
A.B., Maine, 1929; M.S., New York University, 1930.

- BARRY G. KING *Instructor in Physiology*
A.B., California, 1924; A.M., 1925.
- FRED HENRY KUVER *Instructor in Dentistry*
D.D.S., Columbia, 1926.
- CHARLES I. LAMBERT . . . *Professor of Psychiatric Education in Teachers College*
B.S., Iowa, 1901; M.S. and M.D., 1903.
Attending Psychiatrist, Vanderbilt Clinic; Assistant Consultant, Presbyterian Hospital,
Sloane Hospital.
- GEORGE FRANK LINDIG *Instructor in Dentistry*
D.D.S., Minnesota, 1924.
- JULIUS K. LITTMAN *Instructor in Anatomy*
M.D., Long Island Medical, 1926.
Assistant Adjunct in Surgery, Bronx Hospital.
- JOSEPHINE EMILY LUHAN *Assistant Professor of Dentistry*
D.D.S., New York College of Dental and Oral Surgery, 1912.
- L. VOSBURGH LYONS *Instructor in Neurology*
M.D., Columbia, 1917.
- EWING CLEVELAND McBEATH *Associate Professor of Dentistry*
D.D.S., Minnesota, 1910; B.S., 1919; B.M., 1920; M.D., 1921.
- FRANCIS STEPHEN McCAFFREY *Assistant Professor of Dentistry*
B.S., Fordham, 1911; D.D.S., New York College of Dentistry, 1915.
Visiting Oral Surgeon, St. Vincent's Hospital; Visiting Dental Surgeon, Fordham Hospital;
Attending Dental Surgeon, Presbyterian Hospital; Junior Oral Surgeon, Manhattan Eye, Ear,
and Throat Hospital; Assistant Attending Oral Surgeon, Vanderbilt Clinic; Consulting Oral
Surgeon, Manhattan State Hospital.
- MORELL DION McKENZIE *Instructor in Dentistry*
D.D.S., Minnesota, 1917.
- DONALD JOHN McLAUGHLIN *Instructor in Dentistry*
D.D.S., Minnesota, 1926.
- HENRY MILCH *Instructor in Anatomy*
A.B., Columbia, 1916; M.D., 1916.
Associate Attending Surgeon in Orthopedics, Hospital for Bone and Joint Diseases; Adjunct
Surgeon, Riverside Hospital.
- EDWARD GERALD MURPHY *Instructor in Dentistry*
D.D.S., Michigan, 1924; P.G., Pennsylvania, 1925.
- ROBERT W. NORTHROP *Instructor in Dentistry*
D.D.S., Michigan, 1928.
- ENID TRIBE OPPENHEIMER *Instructor in Physiology*
B.Sc., London, 1908.
- JOHN W. PALMER *Assistant in Biological Chemistry*
A.B., Iowa, 1928; M.S., 1929.

- WALTER WALKER PALMER *Bard Professor of the Practice of Medicine*
B.S., Amherst, 1905; Sc.D., 1922; M.D., Harvard, 1910; Sc.D., Columbia, 1929.
Director of Medical Service, Presbyterian Hospital; Consulting Physician, Sloane Hospital.
- DOUGLAS BURNETT PARKER *Associate Professor of Dentistry*
M.D., Long Island College Hospital, 1912; D.D.S., Pennsylvania, 1914.
Assistant Attending Oral Surgeon, Presbyterian Hospital; Instructor in Surgery, College
of Physicians and Surgeons; Consultant in Oral Surgery, Swedish Hospital, Vassar Hospital,
and Grasslands Hospital.
- EARLE BERNARD PHELPS *Professor of Sanitary Science*
B.S., Massachusetts Institute of Technology, 1899.
- JOHN FRANKLIN RALSTON *Instructor in Dentistry*
D.D.S., Marion Sims Dental College, 1903.
Assistant Dental Surgeon, Presbyterian Hospital.
- FRANK ELMER RIANS *Instructor in Dentistry*
D.D.S., Buffalo, 1905.
- MAURICE N. RICHTER *Assistant Professor of Pathology*
B.S., Columbia, 1919; M.D., 1921.
Assistant Attending Pathologist, Presbyterian Hospital.
- WILLIAM MITCHELL ROGERS *Assistant Professor of Anatomy*
B.S., Georgia, 1921; Ph.D., Cornell, 1926.
- THEODOR ROSEBURY *Instructor in Bacteriology*
D.D.S., Pennsylvania, 1928.
- SOLOMON NATHAN ROSENSTEIN *Instructor in Dentistry*
B.S., College of the City of New York, 1929; D.D.S., Columbia, 1930.
- BENJAMIN SALZER *Instructor in Neurology*
M.D., Zurich, 1911.
- JOSEPH SCHROFF *Associate Professor of Dentistry*
B.S., College of the City of New York, 1909; M.D., Columbia, 1920; D.D.S., 1922.
Associate Attending Dental Surgeon, Presbyterian Hospital; Oral Surgeon, O.P.D., Mount
Sinai Hospital, German Polyclinic; Consulting Oral Surgeon, Jewish Memorial Hospital.
- ALEITA H. SCOTT *Assistant Professor of Physiology*
A.B., Hunter, 1912; Ph.D., Columbia, 1923.
- ERNEST LYMAN SCOTT *Associate Professor of Physiology*
B.S., Ohio Wesleyan, 1902; M.S., Chicago, 1911; Ph.D., Columbia, 1914.
- ALBIN ROBERT SEIDEL *Instructor in Dentistry*
D.M.D., Tufts, 1927.
Assistant Director of Dental Service and Associate Attending Dental Surgeon, Presbyterian
Hospital.
- AURA EDWARD SEVERINGHAUS *Assistant Professor of Anatomy*
B.S., Columbia, 1916; A.M., 1920; Ph.D., 1929.
- HARRY H. SHAPIRO *Instructor in Anatomy and*
D.M.D., Tufts, 1918. *Research Associate in Dentistry*
Attending Dentist, Cornwall Hospital.

- HANS SMETANA *Assistant Professor of Pathology*
Gymnasium, Roemerstadr, Moravia; Matura, 1912; M.D., Vienna, 1922.
Assistant Attending Pathologist, Presbyterian Hospital.
- ADELAIDE ROSS SMITH *Associate in Medicine in Industrial Hygiene*
A.B., Wellesley, 1916; M.D., Cornell, 1921.
- GILBERT PERCIVAL SMITH *Instructor in Dentistry*
D.D.S., Minnesota, 1927.
- PHILIP EDWARD SMITH *Professor of Anatomy*
B.S., Pomona, 1908; Cornell, 1910; Ph.D., 1912.
Associate Consultant in Anatomy, Presbyterian Hospital.
- MEYER RUSSELL STEIN *Instructor in Dentistry*
D.D.S., New York University, 1927.
- ELIAS L. STERN *Instructor in Anatomy*
B.S., Columbia, 1920; M.D., 1922.
Adjunct Surgeon and Chief of Surgical Dispensary, Sydenham Hospital; Clinical Assistant Surgeon, Mount Sinai Dispensary.
- FERDINAND A. STEWART, JR. *Instructor in Dentistry*
A.B., Pennsylvania, 1921; D.D.S., 1924.
- LEWIS RIDDELL STOWE *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1916.
Assistant Attending Dental Surgeon, Presbyterian Hospital.
- KENNETH STRONG *Assistant in Pathology*
M.D., Stanford, 1932.
Assistant Resident Pathologist, Presbyterian Hospital.
- OLIVER SMITH STRONG *Professor of Neurology and Neurohistology*
A.B., Princeton, 1886; A.M., Columbia, 1892; Ph.D., 1896.
Consultant in Neuropathology, Vanderbilt Clinic.
- ARTHUR CRANSTON TOTTEN *Instructor in Dentistry*
D.D.S., Pennsylvania, 1926; P.G., 1927.
- MARTIN CHARLES TRACY *Assistant Professor of Dentistry*
D.M.D., Tufts, 1900.
- GENEVA HASTINGS WALLS *Instructor in Dentistry*
Dental Hygiene Diploma, Forsyth Dental Infirmary, 1917.
- PAUL BENJAMIN WIBERG *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1920.
- EDITH L. WILE *Instructor in Physiology*
A.B., Vassar, 1921; M.S., Yale, 1923.
- SIGMUND WILENS *Instructor in Pathology*
B.S., Yale, 1926; M.D., 1929.
Resident Pathologist, Presbyterian Hospital.
- HARRY ALLEN YOUNG *Assistant Professor of Dentistry*
D.D.S., Indiana, 1919.

- MORRIS A. ZIMMER *Instructor in Dentistry*
D.D.S., New York University, 1918.
Attending Dental Surgeon, Beth Israel Hospital, Newark, N. J.
- DANIEL E. ZISKIN *Assistant Professor of Dentistry*
D.D.S., Minnesota, 1917.
Assistant Attending Dental Surgery, Presbyterian Hospital.
- JAMES F. B. ZWEIGHAFT *Instructor in Physiology*
A.B., Columbia, 1922; A.M., 1923; M.D., 1927.
- RAYMUND L. ZWEMER *Assistant Professor of Anatomy*
A.B., Hope, 1923; Ph.D., Yale, 1926.

CLINICAL STAFF

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|----------------------------------|---|
| EMERIC ANGELUS, D.D.S. | EUGENE J. KELLY, D.D.S. |
| HOWARD D. APPLGATE, D.D.S. | JESSE L. LEFCOURT, B.S., D.D.S. |
| WILLIAM W. BAADÉ, D.D.S. | REUBEN LENZER, D.D.S. |
| FRANK E. BEUBE, D.D.S. | JOSEPH L. MCSWEENEY, A.B., D.D.S. |
| RAYMOND M. BRISTOL, D.D.S. | WILLIAM MALARICK, D.M.D. |
| CHARLES R. BUSHONG, A.B., D.D.S. | MILTON R. MILLER, B.S., D.D.S. |
| W. M. CLARK, B.S., D.D.S. | WILLIAM MILLER, B.S., D.D.S. |
| ROSE COHEN, D.D.S. | ARMAND M. OPPENHEIMER, A.B., B.S., D.D.S. |
| ROBERT M. DEVINE, B.S., D.D.S. | HENRY J. POWELL, B.S., D.D.S. |
| SAMUEL B. DRELICH, D.D.S. | EDWARD RYAN, D.D.S. |
| JAMES M. DUNNING, A.B., D.D.S. | LOUIS A. SAVORITO, D.D.S. |
| JACOB ERDREICH, D.M.D. | HERBERT F. SILVERS, B.S., D.D.S. |
| HERBERT H. ERNST, D.D.S. | IRVING J. SPERBER, D.D.S. |
| ROBERT FEAR, D.D.S. | CHARLES H. TIMMS, D.D.S. |
| LOUIS FELDMAN, B.S., D.D.S. | MILTON S. TUCKER, L.D.S., D.D.S. |
| MARY GOLDFARB, D.D.S. | WILLIAM A. VERLIN, A.B., D.D.S. |
| ERNA MEYER GUTENSTEIN, D.D.S. | GEORGE H. VERNON, D.D.S. |
| CLIFFORD JOHNSON, D.M.D. | HAROLD WOODRUFF, D.D.S. |

PRESBYTERIAN HOSPITAL DENTAL SERVICE

Director, HAROLD J. LEONARD, D.D.S., B.S.
Assistant Director, ALBIN R. SEIDEL, D.M.D.

Consultant

ALFRED OWRE, AB., C.M., D.M.D.,
M.D., Sc.D.

Attending Dental Surgeons

ADOLPH BERGER, D.D.S.
LEROY L. HARTMAN, D.D.S.
HAROLD J. LEONARD, B.S., D.D.S.,
FRANCIS S. McCaffrey, B.S., D.D.S.
ARTHUR T. ROWE, D.D.S.

Associate Attending Dental Surgeons

LESTER R. CAHN, D.D.S.
ISADOR HIRSCHFELD, D.D.S.
JOSEPH SCHROFF, B.S., M.D., D.D.S.
ALBIN R. SEIDEL, D.M.D.

Assisting Attending Dental Surgeons

HOUGHTON HOLLIDAY, A.B., D.D.S.
LEWIS R. STOWE, D.D.S.
DANIEL E. ZISKIN, D.D.S.

Assistant Dental Surgeons

HOWARD APPLGATE, D.D.S.	REUBEN LENZER, D.D.S.
WILLIAM W. BAADÉ, D.D.S.	JOHN F. RALSTON, D.D.S.
FRANK E. BEUBE, D.D.S.	EDWARD W. RYAN, D.D.S.
CHARLES R. BUSHONG, A.B., D.D.S.	HERBERT F. SILVERS, B.S., D.D.S.
ROSE COHEN, D.D.S.	CHARLES H. TIMMS, D.D.S.

Interns

MAURICE J. HICKEY, D.M.D.
DONALD McL. BISHOP, D.M.D.

PRESBYTERIAN HOSPITAL ORAL SURGERY SERVICE

Attending Oral Surgeon, HENRY S. DUNNING, M.D., D.D.S.
Assistant Attending Oral Surgeon, DOUGLAS B. PARKER, M.D., D.D.S.

COMMITTEES

ADMINISTRATION

Acting Dean RAPPLEYE (*Chairman*), Professors BODECKER, H. S. DUNNING,
HARTMAN, LEONARD, ROWE, and WAUGH

CURRICULUM

Professor LEONARD (*Chairman*), Professors BERGER, BODECKER, HARTMAN, KARSHAN,
LIEB, RICHTER, and ROWE

LIBRARY

Professor ROWE, *School of Dental and Oral Surgery Representative*

EXTENSION AND POSTGRADUATE COURSES

Professor WAUGH (*Chairman*), Professors BERGER and DIAMOND

APPLIED RESEARCH

Professor BODECKER (*Chairman*), Professors BERGER, CAHN, CRAWFORD,
DIAMOND, and HELLMAN

UNIVERSITY OFFICERS OF ADMINISTRATION

FRANK D. FACKENTHAL, LL.D., Litt.D. *Secretary of the University*
ADAM LEROY JONES, Ph.D., Litt.D. *Director of University Admissions*
CHARLES C. WILLIAMSON, Ph.D., Litt.D. *Director of University Libraries*
ROGER HOWSON, A.M. *Librarian*
EDWARD J. GRANT, A.B. *Registrar of the University*
CHARLES S. DANIELSON *Bursar of the University*

HENRY LEE NORRIS, M.E.	<i>Director of Works</i>
DAVID M. UPDIKE, M.E.	<i>Superintendent of Buildings and Grounds</i>
FREDERICK MILLER, C.E.	<i>Assistant Superintendent of Buildings and Grounds</i>
REV. RAYMOND C. KNOX, S.T.D.	<i>Chaplain of the University</i>
EDWARD S. ELLIOTT, M.D.	<i>Director of Athletics</i>
WILLIAM H. McCASTLINE, M.D.	<i>University Medical Officer</i>
HERBERT B. HOWE, A.M.	<i>Director of Earl Hall</i>
W. EMERSON GENTZLER, A.M.	<i>Secretary of Appointments</i>
CLARENCE E. LOVEJOY, A.B.	<i>Alumni Secretary</i>

SCHOOL OF DENTAL AND ORAL SURGERY

GENERAL INFORMATION

HISTORICAL STATEMENT

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

In September, 1916, students in dentistry were admitted to courses in Columbia University at the School of Medicine. On March 5, 1917, the Trustees of the University established a School of Dentistry as of September 27, 1916, and from that date the School became an integral part of the University. On March 1, 1920, the dental building adjacent to the School of Medicine and Vanderbilt Clinic was finished and assigned to the use of this school.

On July 1, 1923, the College of Dental and Oral Surgery of New York (organized in 1905) was merged with the School of Dentistry and the combined institutions named the School of Dental and Oral Surgery of Columbia University. By this merger Columbia acquired two large buildings, at 302-306 East 35th Street and 309-315 East 34th Street in which the School was housed up to the time of moving into the Medical Center.

In September, 1928, the School was moved to the Columbia University-Presbyterian Hospital Medical Center where it occupies the three upper floors of the Vanderbilt Clinic wing, giving a net floor area of 40,000 square feet. The College of Physicians and Surgeons in which the fundamental medical science subjects are given adjoins it, the halls of the two being continuous. In adjacent wings, the halls of which are continuous with those of the School, the wards and out-patient departments of the Presbyterian and associated hospitals are located, thus giving the closest possible contact and association with all branches of health service. The Dental School Clinic includes as one of its functions the dental care of the patients of the Medical Center hospitals.

It is the purpose of the Faculty to maintain dental education in this school on the same footing as that of other branches of health service. Three years of college work including certain specified subjects are required for admission and of those who have fulfilled the requirements a careful selection is made on the basis of their fitness for the practice of dentistry. The course of dentistry covers four years leading to the degree of Doctor of Dental Surgery. The greater part of the first two years of the curriculum is taken in the fundamental departments of the College of Physicians and Surgeons.

STUDENTS

A student who has fulfilled the preliminary qualifications for candidacy for a degree, certificate or diploma in regular course is enrolled as a matriculated student of the University. Acceptance is based on grounds of character and health as well

as on the fulfillment of academic requirements. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

In exceptional circumstances a student not enrolled as a matriculated student may be admitted to the University as a non-matriculated student with permission to attend such courses of instruction as he is qualified to take but not as a candidate for a degree, certificate or diploma in regular course. Non-matriculated students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive formal statement of the satisfactory completion of any course.

ACADEMIC DISCIPLINE

The continuance of each student upon the rolls, the receipt by him of academic credits, his graduation, or the conferring of any degree or the granting of any certificate are strictly subject to such exercise of the disciplinary power of the University as may be necessary to enforce the rules of the University and to maintain standards of personal conduct and character acceptable to the University. In the exercise of academic discipline, the student's conduct outside as well as inside the University will be taken into consideration.

The disciplinary authority of the University is vested in the President in such cases as he deems proper, and subject to the reserve powers of the President, in the Dean of each Faculty and the Director of the work of each Administrative Board.

GRADUATION

Diplomas are issued only at Commencement and in February and October, (for A.M. candidates at Commencement and in February and December, or, in the case of the Ph.D. degree, upon the completion of the requirements, also in August for the degree of D.D.S. and for the B.S. in Optometry).

WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years will be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean. Students withdrawing are required to notify the Registrar immediately.

The Dean of the school or faculty concerned, may, for reasons of weight, grant a leave of absence to a student in good standing.

ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of

instruction are grouped, may be obtained without charge from the Secretary of the University.

Letters requesting more detailed information than is contained in this Announcement, and all correspondence regarding admission, should be addressed to the Dean, School of Dental and Oral Surgery, 630 West 168th Street.

LIBRARY

A combined medical-dental library with spacious reading room containing approximately 56,000 volumes and about 30,000 pamphlets occupies a part of three lower stories of the main administration building of the Medical Center and is open to students from 9 a.m. to 10 p.m., on week days.

This library has been formed through the consolidation of departmental libraries to serve more adequately the needs of students, interns, and teachers of the combined schools and Presbyterian Hospital Unit. It has a seating capacity for 250 readers.

The periodical room on the upper floor is especially equipped to foster and encourage research work. Here are received 500 current journals, and nearby will be shelved the bound volumes of the most important journals covering a period of approximately ten years. In addition, the more important reference works, the systems of medicine and surgery, some of the German *Handbücher* and other bibliographical tools will be available for intensive research work.

The book collections are systematically arranged under the Library of Congress classification, and the serials shelved in a strictly alphabetical order, so as to insure quick service and prompt delivery over the loan desk.

The dictionary catalogue in the lobby, with its author, subject and title entries, should be freely consulted as a guide and index to the subject matter in the combined collections of the library.

UNIVERSITY PRIVILEGES

As the School of Dental and Oral Surgery is an integral part of Columbia University, its students enjoy all the privileges and facilities open to members of other departments of the University. They may reside in the University dormitories at Morningside Heights, and are eligible to membership in the various social and other organizations of the student body.

University Libraries. The libraries on Morningside Heights are open to all students of dentistry, and books may be borrowed for home use. They include collections on anatomy, biochemistry, public health, nursing, and other subjects related to dentistry, and supplement the special collections available in the College of Physicians and Surgeons, and in the New York Academy of Medicine, Fifth Avenue at 103d Street. The library of the College of Pharmacy, 115 West 68th Street, is also open to students in the School of Dentistry.

University Gymnasium. The Gymnasium is situated on Morningside Heights, and is open daily during the academic year, except on Sundays and legal holidays, from 9 a.m. to 7 p.m. on Tuesdays, Fridays, and Saturdays, and from 9 a.m. to 10 p.m. on Mondays, Wednesdays, and Thursdays. On all holidays it is open from 3 to 6 p.m. One or more of the instructors are on the floor at all times when the

Gymnasium is open. Students of the School of Dentistry may enjoy its privileges and have the use of the Gymnasium and baths and a private locker. The student is entitled also to a physical examination by the University Medical Officer, who, on the basis of such an examination, will give advice as to the kind and amount of exercise best adapted to the needs of each man. The Gymnasium is large, thoroughly equipped, and under the immediate supervision of the Professor of Physical Education who is assisted by a corps of able instructors.

Employment. The Appointments Office located in Earl Hall is the central placement department of the University through which students and graduates are referred to suitable positions.

It is the function of the Appointments Office to endeavor to secure for competent men and women students who need to work their way through the University, the opportunity to earn enough for their partial support. It is the experience of the office, however, that it is practically impossible for dental students to undertake outside part-time work during the academic year without seriously jeopardizing their school work and their health. The office consequently does not encourage students of the School of Dental and Oral Surgery to seek employment during the academic year, although it assists competent men and women to secure suitable and remunerative work during the summer. In general the office advises students who are unable to pay the complete cost of attending the School to withdraw for a year in order to earn the money necessary to enable them to give undivided attention to their academic work.

MEDICAL ATTENDANCE

The University Medical Officer, Dr. W. H. McCastline, has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, should be reported to him promptly. The Medical Officer and the members of his staff hold office hours daily in Earl Hall for the medical care of students and members of the staff.

RESIDENCE HALLS

All students registered within the University regularly pursuing their courses of study are eligible for residence in University Residence Halls. The University desires its students to live whenever possible in the Residence Halls which are a part of the educational development and life of Morningside Heights. These Halls, owned and controlled by the University, are located on or immediately adjacent to the Campus, afford easy access to library and laboratories, and should provide for students companionship with persons of like interest. Within several of the Residence Halls and in the University Commons, dining rooms are maintained by the University and administered by skilled dieticians. Infirmaries are maintained for the exclusive use of students in the Residence Halls. Assignment of room is made on the academic year basis but rentals may be paid on session, monthly, or in case of need, weekly basis.

Application blanks for rooms and copies of Residence Halls Announcements, giving floor plans and dormitory regulations, will be furnished on request by the Secretary of the University, 213 Library.

Residence for Men

Residence for men may be had in Fernald Hall where a majority of the residents are graduate students or members of the Law School, or in John Jay Hall in which students from all the schools of the University find residence, or in Livingston Hall primarily a graduate dormitory, or in Hartley Hall, primarily an undergraduate dormitory. Rates for single rooms within these dormitories for the academic year range from \$128 to \$270; for the calendar year, from \$185 to \$395.

A special provision has been made for a low rate for such students as care to share their rooms. Four men are assigned to three rooms. Two rooms are used for bedrooms and one room for a study. The rate for each man is four dollars a week.

Students desirous of group residence within the University Halls are encouraged to carry out these plans in furtherance of the general policy of the University that University Residence Halls should in every way promote the social and academic life of its students.

A dining room and a grill are maintained in John Jay Hall. While these dining rooms are open to all members of the University they are used primarily by the men in residence on South Quadrangle. Meals are served at a fixed price and *à la carte*. Meals at fixed price may be had for \$7.65 per week.

The University infirmary for men is located on the top floor of John Jay Hall. The services of the infirmary are exclusively available to residents of the dormitories.

Residence for Women

Graduate and professional women within the University live in Johnson Hall where rooms and dining hall give admirable opportunity for group life. Ample social rooms are provided. The rates for single rooms in Johnson Hall are from \$190 to \$310 for the academic year. The rate for meals is \$7.00 per week for breakfast and dinner.

The University infirmary for women is located on the top floor of Johnson Hall. The services of the infirmary are exclusively available to residents of the dormitories.

Grants in aid are available for students under certain circumstances and assist materially in the reduction of the rates for the students who receive such aid.

Bard Hall

At the Medical School the University maintains in Bard Hall a Residence Hall with dining hall facilities for men and for women.

Residence in Barnard College and Teachers College

Barnard College maintains dormitories for undergraduate women. When space is available graduate women, particularly when graduates of Barnard College, will be received in residence. Dining facilities are provided for students in Barnard College.

Teachers College maintains five Residence Halls. In Whittier Hall rooms and dining facilities are offered for women students. In Seth Low Hall rooms without dining facilities are offered women students. Bancroft Hall, Grant Hall, and Sarasota Hall contain apartments in which housekeeping can be carried on and which are especially adapted for the use of married students.

INTERNATIONAL HOUSE

Men and women students registered in colleges and schools within New York City, particularly students from foreign lands, find at International House, located near the University and under the control of its own Board of Trustees, a residence with dining facilities.

RESIDENCE BUREAU

Students who find it necessary to live outside the University may obtain lists of inspected rooms and apartments at the University Residence Bureau.

KING'S CROWN HOTEL

The King's Crown Hotel, located at 420 West 116th Street, in close proximity to the University, is owned by the University and operated by the Knott Hotels Corporation. It provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the Campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office), the Residence Bureau, and the Secretary of Appointments. On the upper floor are the offices of the Chaplain of the University and his staff. An auditorium seating 400 people is used by musical and dramatic organizations. The lower floor, entered from Broadway, is occupied by the office of the University Medical Officer.

UNIVERSITY BOOKSTORE

The medical branch of the University Bookstore is situated in Room B-441 of the College of Physicians and Surgeons. Medical and dental textbooks, whenever such discounts are permitted by the publishers, and other supplies are sold at discounts from the usual prices. The store is open from 8:30 a.m. to 8:00 p.m. daily; during the first days of the opening session, until 10 p.m. The store maintains a theater and concert ticket service, a travel bureau, and other services, with substantial savings to Columbia students.

For the benefit of students wishing to buy or sell used medical or dental textbooks there is operated a second-hand exchange in connection with the Medical Center Bookstore, Room B-441. Details of the operation of the exchange may be had in the Bookstore.

REQUIREMENTS FOR ADMISSION

ADMISSION TO FIRST YEAR OF THE SCHOOL OF DENTAL AND ORAL SURGERY

Eligibility. No definite information regarding eligibility can be given until the completed application blank has been filed by the applicant at the office of the Dean.

Application. It is desirable that candidates make application as soon as possible in order to be passed upon by the Committee on Admissions at an early date. Application blanks will be furnished by the Dean's office of the School of Dental and Oral Surgery, 630 West 168th Street, New York City. Application blanks must be completely filled in and accompanied by an official transcript of the college record.

The minimum requirement for admission to the first year class is attendance for three full years at an acceptable college of arts and sciences, which must include successful completion of courses required for the dental student qualifying certificate as mentioned below.

The New York State Board of Regents includes the following subjects in the minimum requirements for the qualifying certificate:

English composition and literature, 6 semester hours.

Physics, 6 semester hours.

Biology, 6 semester hours.

Chemistry (including an approved course in organic chemistry), 12 semester hours.

Preference will be given in the selection of students to those who present to the Committee on Admissions evidence of high achievement in selected college courses of special pre-dental value and who are most likely to succeed in dentistry, rather than to those who present the largest number of course credits or those who have limited their preparation to the prescribed subjects.

Inasmuch as an understanding of the medical sciences is based upon the knowledge of the underlying sciences of chemistry, physics, and biology, students are urged, so far as time permits, to take additional courses in quantitative, qualitative, physical, and organic chemistry, physics, comparative anatomy, and other advanced courses in biology, as well as courses in mathematics, German and French, sociology, history, and other subjects of general cultural and scientific value. Courses in shop practice and drawing are also of value in the more technical phases of dentistry in giving the muscle and eye coördination so necessary and so difficult to attain in later years.

Note. A point or semester hour is the equivalent of one hour of lecture or recitation or of two hours of laboratory work per week, per semester. Suitable laboratory work must be included in each of the courses in science.

Owing to the limited number of students who can be accommodated, completion of the requirements for entrance does not guarantee admission. The entire pre-dental record of each student is carefully examined by the Committee on Admissions in order that those who are adjudged most capable of meeting the exacting demands of the course and of the profession of dentistry may be selected.

In order that the best selections may be made from among the candidates who are eligible for admission, all applicants who are eligible will be requested to

report at the Dean's office for a personal interview some time prior to the final action of the Committee on Admissions. Those who remain on the eligible list after a personal interview will be given an examination as to mechanical ability and manual dexterity. This test will be given at various times during the year. It will consist of exercises in mechanical and free hand drawing, metal filing, and moulding in plastic material, and will be conducted by the technic teachers in the School.

Fee on Admission. A fee of \$10 is payable by the applicant within ten days of his receipt of notice that he has been accepted for admission. A check to the order of Columbia University should be returned by the accepted applicant with notice that he intends to matriculate. If the applicant registers within the prescribed registration dates in September, this fee will be credited as the University fee. If he fails to register the fee lapses and will be used by the University to meet the cost of its administrative and overhead charges in caring for applicants who do not finally register.

COMBINED COURSES

Combined Courses with Columbia College. Upon receiving 94 points credit, 64 of which must be for work in Columbia College, including all of the work prescribed for the degree of A.B. in Columbia College, a student may take studies in the first year of the School of Dental and Oral Surgery, provided he can satisfy the stated requirements and is accepted for admission therein, and will receive the degree of Bachelor of Arts from Columbia College upon the satisfactory completion of the year's work.

No course may be counted toward a professional degree and at the same time be included among those which go to make up the 94 points referred to above.

Combined Course in Dentistry and Medicine. It is usually possible for a graduate of a registered medical school with the degree of Doctor of Medicine to meet the requirements of the School and receive the degree of Doctor of Dental Surgery by the satisfactory completion of a special two-year course.

Admission to Advanced Standing. Students will not be admitted to advanced standing upon examination, but only upon a satisfactory record from their school of previous residence. Provided they are eligible for the dental student qualifying certificate required by the New York State Department of Education and can submit evidence of the satisfactory completion of the entrance requirements of this school previous to entrance to any dental school, candidates who have completed, without condition, one or two years of study in a dental school registered in the state of New York including courses equivalent to those given at this school are eligible to apply for admission to the second or third years, respectively.

Owing to the lack of uniformity in the arrangement of the first and second year curricula in the various dental schools a transfer can usually be accomplished with the least adjustment at the end of the second year.

Admission to the fourth year is by special permission of the Committee on Administration and is limited to students who have the predental qualifications and have the degree of Doctor of Dental Surgery from an acceptable dental school. Applicants for admission to the fourth year must furnish these credentials in addition to the others required for advanced standing.

Application blanks may be obtained from the Dean's office, 630 West 168th Street.

SUMMER SESSION

During the summer, an optional course in operative and prosthetic clinical practice, without credit, will be offered to men who have completed the required work of the third year. The course must be continued throughout the entire period from June 7 to August 22, 1933. There will be no fee for this optional course.

COURSES IN ORAL HYGIENE

The courses in oral hygiene offered by the School of Dental and Oral Surgery are intended for women who desire to become licensed dental hygienists. The requirements for admission are the qualifying certificate obtained from the Department of Education of the State of New York at Albany, New York, the completion of at least four years of high school work, including certain specified subjects, and the attainment of at least eighteen years of age. For full information address Professor ANNA V. HUGHES, at 630 West 168th Street.

COURSES FOR GRADUATES

The Faculty is always willing at the request of practitioners to conduct through the Extension Division short courses in any subjects in dentistry that may be desired, providing it can be done without interference with the regular routine work of the School. It is the business of the Extension Division to arrange such courses to suit the convenience in time and place of those who take and those who give the courses. The fees for such special short courses are on the basis of cost.

It is usually possible in each division of the School to accommodate two or three dentists who desire to come into the School for study and clinical practice under the regular teaching staff. The candidate for such work must be an ethical dentist recommended by his local dental society. In most cases it is required that the applicant register for a period of time equal to one semester, full or half time, but in a few divisions shorter courses may be arranged. If he desires to register for work he applies to the Dean who, in conference with the teachers concerned, passes on the application. If acceptable the candidate registers and pays a tuition fee which is proportional to the regular undergraduate year fee as the amount of work registered for is to an undergraduate year of work. The minimum registration is for the equivalent of five trimester credits. Such work does not lead to credit or toward a degree or certificate.

For full information address the Dean's office, School of Dental and Oral Surgery, 630 West 168th Street, New York City.

CERTIFICATE OF PROFICIENCY

The School of Dental and Oral Surgery is authorized to grant a Certificate of Proficiency in Dentistry or in a special branch of dentistry selected by the candidate and approved by the School of Dental and Oral Surgery to students who have complied with the requirements stated below.

The requirements for admission shall be graduation from the School of Dental and Oral Surgery or from another acceptable school of dentistry in the United States or in a foreign country and the applicant must be a member in good standing of his national dental association. The membership requirement does not apply to students who enter within a year of graduation.

The course of study for the Certificate of Proficiency shall include not less than thirty-two points (forty-eight trimester credits) of special work in the clinical branches of dentistry approved by the Dean of the School of Dental and Oral Surgery.

The fee for the year's work leading to the Certificate of Proficiency is the same as for undergraduate work in the School.

Application blanks may be obtained from the Office of the Dean, School of Dental and Oral Surgery, 630 West 168th Street. When application for registration is made, the candidate is passed upon by the Dean and the teachers concerned and, if accepted, registers in the regular manner.

COURSES IN ORTHODONTIA FOR GRADUATES

An organized twelve-month course has been given since 1927 to qualified graduates in dentistry who wish to prepare for specialization in orthodontia. Admission requirements include graduation from an acceptable school of dentistry, and membership in good standing in the national dental organization of the applicant's country. This membership requirement does not apply to those who enter within the year of graduation. The Certificate of Proficiency is awarded to those who satisfactorily complete the course.

For special information see the Announcement of Advanced and Graduate Courses in Dentistry, which may be obtained from the Director of the Division of Orthodontia or the Dean, School of Dental and Oral Surgery, 630 West 168th Street, New York City.

GRADUATE COURSES

Graduation from accredited dental schools under the present curriculum of four academic years preceded by three acceptable predental college years is considered by the Graduate Faculties of Columbia University as qualification for admission. For information regarding the curricula leading to the Master of Arts or the Doctor of Philosophy degrees in these Faculties see the Graduate Announcement.

REGISTRATION

Before attending University courses, every student must present himself at the office of the Registrar, and file a registration blank giving such information as may be required. The periods set aside for registration in each session are stated in the Academic Calendar found at the end of this Announcement. Registration at a later date is permitted only on the written permission of the Dean, satisfactory cause for the delay having been shown.

FEES

The University Statutes provide that tuition fees, the University fee, and laboratory deposits are payable semiannually in advance. No reduction is made for late registration. Registration will not be complete until such fees are paid. Checks should be drawn to the order of Columbia University and presented in person or mailed to the office of the Bursar. Payment of fees after the last day of registration (see Academic Calendar) imposes automatically the statutory charge of \$6.00 for

this privilege. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The fees to be paid by students are subject to change at any time in the discretion of the Trustees.

The following fees are prescribed by statute:

(a) University fee:

For all students (except those in University Extension and Summer Session), for each Winter or Spring Session or for any part thereof . . .	\$10.00
For students in University Extension exclusively, for a Winter or Spring Session or any part thereof, and for students in a Summer Session or any part thereof	\$7.00

(b) Tuition Fee

For all students, per point (which is one hour a week of attendance for a Winter or Spring Session, or the equivalent thereof), except in cases where a special fee is fixed	\$10.00
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With the proviso that the minimum fee for a Winter or Spring Session in the case of a student enrolled for ten points or more in the School of Law shall be not less than \$190, and in the case of a student enrolled for the full course in the School of Medicine or in the School of Dental and Oral Surgery not less than \$250, and in the case of a student enrolled for the full course in Oral Hygiene or in the School of Journalism not less than \$150.

(c) Fee for Application

For any degree	\$20.00
For any certificate	\$10.00

(d) Privileges

1. Late registration or late application for a degree or certificate or for deficiency or special examinations \$6.00
2. Late application for entrance examinations \$1.00
3. Deficiency and special examinations \$3.00

The conditions under which such privileges shall be granted are to be determined by the Registrar with the approval of the President.

(e) Entrance Examinations—for each series \$10.00

(f) Rebates

1. The University fee and the fee for application for any degree or certificate shall not be subject to rebate.
2. After the last day of the period provided for change of course, as announced in the Academic Calendar, no tuition fee shall be returned for any course which the student may for any reason discontinue. Exception to this rule may be made only in cases of total withdrawal from the University, when a partial return of fees may be authorized by the Registrar.

(g) Student Activities Fee

For all male students matriculated in any School of the University in which the first degree is normally granted four years after admission to college, for each Winter or Spring Session, or any part thereof	\$12.50
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Three-fifths of the amount received in each session on account of this fee to be expended on the maintenance of athletic activities, and two-fifths to be expended on the maintenance of non-athletic activities of students in Columbia college, provided that all such expenditures shall be subject to the authority of the President.

(h) Medical School Athletic and Recreational Fee

For all male students, per annum \$10.00

Male students in the graduate and professional schools will be entitled to certain privileges on payment of the student activities fee of \$12.50, for each Winter or Spring Session or any part thereof.

When a rebate is allowed for the discontinuance of courses or withdrawal from the University, such rebate will be reckoned from the day upon which the Registrar receives notice from the student.

For the ultimate date for the completion of registration and for filing an application for a deficiency or a special examination, or for a degree, without the payment of an additional fee, see the Academic Calendar. An examination to remove a deficiency in a course, or an examination at an unusual time, involves the payment of an additional fee.

A deposit for the use of lockers, keys, apparatus, material and the like is required of students in certain schools and courses. The deposit for breakage includes apparatus to replace broken articles or articles not returned at the close of the course; any chemicals not in the kit of chemicals supplied to each student, or additional quantities of chemicals, beyond this allowance; and service in washing apparatus, or work by a mechanic. A deposit of \$25 will be required in the School of Dental and Oral Surgery each year to cover material and breakage in the laboratories; for each Summer Session, \$10.

Instruments. Each student is required to supply himself with a microscope of a satisfactory type and instruments as specified in the official instrument list. The purchase from the University of microscopes and instruments in original package outfits has been made compulsory, and unauthorized or incomplete equipment will not be accepted by the instructors. Dental engines are rented from the School at the rate of \$15 for the academic year, payable in advance on registration in September. Instrument cases are also rented from the School, the fee of \$10 for two cases being deducted from the breakage fee at the end of the year.

Supplies. All technic material and regular supplies *must* be purchased from the University upon an order from the instructor. The students will not be allowed to purchase more than is required to complete a case. The quantity and quality are selected with a view to the best possible results and conservation of the students' best interests.

Lockers. Each student on entering will be required to supply himself with one combination lock as prescribed by the School. Locks are one dollar each.

ESTIMATED EXPENSES FOR ACADEMIC YEAR

Following is an itemized estimate of expenses of attendance in the School of Dental and Oral Surgery for a full academic year. The tuition, room, board, books, instruments, and laundry figures are based upon actual prevailing rates. The cost of

clothes, travel, and incidentals is of course variable, depending upon the tastes and financial situation of the individual, but the figures quoted have been arrived at after a careful study of present conditions.

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$545	\$545
Room	180	144
Board	324	216
Books	30	20
Instruments (See below)	120	100
Laundry	40	28
Additional expenses, including clothing, travel, charity, organizations, and sundries	250	150
	<hr/> \$1,489	<hr/> \$1,203

The total cost of instruments for the four-year course is from \$400 to \$480, an average yearly cost of \$100 to \$120. It should be noted that the instruments for the first two years cost about \$300.

Room prices are based on rates in the University Residence Halls. Group assignments at \$4 a week are in operation in the men's Residence Halls. Prices in the neighboring rooming houses are slightly higher.

Medical advice and treatment of minor ailments are rendered free of charge by the University Medical Officer.

Many students reduce their expenses by sending their laundry home weekly via parcel post.

EXAMINATIONS AND STANDING

Final examinations are held at the end of the course, and reexaminations for students with conditions are held within one month after the close of the regular academic year.

The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory, reexamination required; Inc., incomplete, completed work must be submitted within the time limit set by the instructor. One reexamination will be allowed in a course graded F; if the examination is passed the grade will be a C.

No student will be recommended for the degree of D.D.S. until he has completed all the required practical work and passed satisfactory examination in all the subjects of the entire course.

PROMOTIONS

Promotion will be granted to such students as have received passing grades in all subjects.

A student who has failed in any one of his courses is not allowed to go on with his class until he has removed that failure to the satisfaction of the head of the department.

A student who has failed two courses in the first year may be allowed reexamination in the failed courses provided that the failures do not comprise any two out of the three following courses: gross anatomy, physiology, and biological chemistry.

A student who has failed in two courses of the second, third, or fourth years may be allowed reëxamination in the two failed courses provided the failed subjects do not include operative dentistry, prosthetic dentistry, or crown and bridge work, and that the total hours of the two courses failed do not exceed one third of the total course hours for that year.

Students who receive conditions or failures amounting to one-third or more of the year's work must repeat the work of the entire year.

A student may repeat an entire year only once during his dental course and may not repeat any other year later, unless the Faculty of the School votes to suspend this rule on recommendation of the class Faculty under which the student has been working.

The class Faculties have general supervision of students' work and the application of these regulations to individual cases.

The Faculty reserves the right to amend the schedule of studies from time to time at its discretion, without further notice.

REQUIREMENTS FOR GRADUATION

In addition to complying with the requirements for admission and to completing the required work of the curriculum, each candidate for the degree of D.D.S. must present satisfactory evidence as required by law of good moral character, and of having attained the age of twenty-one years. If the candidate shall have been admitted to advanced standing, he must have spent not less than four academic years or their equivalent in approved medical or dental colleges in the study of the subjects making up the curriculum of the School of Dental and Oral Surgery.

LICENSE TO PRACTICE DENTISTRY IN NEW YORK STATE

Those desiring to take the New York State Board examinations are advised to address the Chief of Professional Examinations Bureau, New York State Department of Education, Albany, New York.

All requirements for admission to the examinations should be completed at least fifteen days before the examinations begin.

The examinations are conducted by the Department and answer papers are read and marked by the Board, who know the candidate only by number. The subjects of the licensing examinations are (1) anatomy, (2) chemistry and metallurgy, (3) operative dentistry and radiography, (4) therapeutics and materia medica, (5) physiology and hygiene, (6) oral surgery, pathology and bacteriology, (7) prosthetic dentistry, (8) histology. The operative and prosthetic subjects are divided into theory and practice. The minimum standing required in each subject is 75 per cent.

ELLIS FELLOWSHIPS

Two Ellis Fellowships are awarded annually to qualified graduates of any of the colleges of recognized rank in the state of Vermont. The holders of these fellowships may pursue resident graduate studies under any one of the graduate schools maintained by the University, and are eligible for reappointment for not more than two additional years, with the proviso that a holder of the fellowship who is a student in medicine may be eligible for reappointment for not to exceed three additional years. The annual stipend is \$1,600.

SCHOLARSHIPS

Three scholarships of tuition value in the School of Dental and Oral Surgery are awarded annually. These scholarships are open to students from outside the metropolitan area whose records of scholarship and special fitness for dentistry make them particularly desirable to the School.

EWELL PRIZE

A prize to be known as the Ella Maria Ewell Medal will be awarded annually to that student of the School of Dental and Oral Surgery who may, in the judgment of the Faculty, be most proficient in some subject of dentistry. The branch of dentistry for which the award is made will be determined by the executors of the will of Glover C. Beckwith-Ewell.

THE ASSOCIATION OF THE ALUMNI OF THE SCHOOL OF
DENTAL AND ORAL SURGERY*Officers*

President, RAYMOND M. BRISTOL, D.D.S.

Vice-President, JAMES M. DUNNING, A.B., D.D.S.

Secretary, BENJAMIN B. KAMRIN, B.S., D.D.S.

Treasurer, B. FABIAN DANE, B.S., D.D.S.

Honorary Chairman, JOSEPH SCHROFF, M.D., D.D.S.

Delegates to Board of Governors of Columbia Alumni Federation, Drs. JOSEPH SCHROFF, JOSEPH R. HORN, and S. N. ROSENSTEIN.

Membership. Any graduate, former student, member of the Faculty or administrative officer of the School of Dental and Oral Surgery is eligible to membership in the Association of the Alumni of the School of Dental and Oral Surgery of Columbia University.

COURSE OF STUDIES

For purposes of instruction the work of each year is scheduled in three trimesters of ten weeks each from September to May. These are designated as First, Second, and Third, and in 1933-1934 begin on September 27, December 9, and March 5, respectively. The Summer Session in 1933 begins June 7 and ends August 22. Registration and collection of fees for the regular academic year are administered in accordance with the University Academic Calendar in September and February.

Courses numbered from 101 to 200 are open to candidates for the degree of D.D.S., in their first and second years. Courses numbered from 201 upward are open to candidates for the degree of D.D.S. in their third and fourth years, and to graduates in dentistry.

Following the completion of a certain proportion of the work of the fourth year, qualified students may choose electives which will continue, supplement, or vary the work done in the prescribed courses upon nomination by the head of the department and with permission of the Class Faculty. The student may select the elective he wishes to take and register the choice with the chairman of the Curriculum Committee, who will arrange for the time and place of meeting. As in all other courses, students will be held responsible for attendance and the successful passing of examinations.

SUMMARY OF STUDIES

The University reserves the right to make such changes in the program of studies at any time as experience may prove desirable.

The following outline, drawn up from the point of view of the student and covering the four years' study, shows the work required of a candidate for the degree of Doctor of Dental Surgery. The unit of credit used is the trimester credit which signifies approximately three academic hours of work a week for one trimester of ten weeks. For classroom work this means one hour in class a week, each requiring an average of two hours of home work. For laboratory or clinical work requiring no outside study it represents three hours of work a week in the School. For a detailed statement of the content of each course, and other questions of detail, the student is referred to the departmental statements which follow.

The schedules of required work hours are subject to change at the pleasure of the Faculty.

CURRICULUM

<i>Subject</i>	<i>Credits</i>	<i>Academic Hours</i>
FRESHMAN YEAR:		
Anatomy, Gross	15	300
Anatomy, Microscopic	7	150
Anatomy, Neuro	4	80
Anatomy, Oral	6	170
Biochemistry	8	160
Histology, Oral	2	60
Physiology	9	180
Prosthetics	1	30
	<u>52</u>	<u>1130</u>
SOPHOMORE YEAR:		
Bacteriology	7	130
Crown and Bridge	3	90
Dental Materials	2	60
Diagnosis, Oral	1	10
Operative Dentistry	8	220
Pathology	9	178
Pharmacology	6	100
Prophylaxis, Oral	2	60
Prosthetic Dentistry	9	250
Psychopathology	1	10
Radiology	1	10
Surgery, Oral	2	20
	<u>51</u>	<u>1138</u>
JUNIOR YEAR:		
Crown and Bridge	9	230
Diagnosis, Oral	4	80
Hygiene, Oral	4	60
Operative Dentistry	12	320
Orthodontia	4	110
Pathology, Oral	5	90
Periodontia	1	30
Pharmacology, Applied	1	10
Prosthetic Dentistry	7	190
Radiology	1	30
Surgery, Oral	2½	50
	<u>50½</u>	<u>1200</u>
SENIOR YEAR:		
Crown and Bridge	6	180
Dentistry for Children	4	100
Operative Dentistry	13	370
Periodontia	2	50
Practice of Medicine	7	120
Prosthetic Dentistry	6	160
Public Health	3	30
Surgery, Oral	2½	90
Theory and Practice	3	30
Electives	4	120
	<u>50½</u>	<u>1250</u>

DEPARTMENTAL STATEMENTS

ANATOMY

Anatomy 150F—Microscopic anatomy. 15 hours a week for one trimester.

First year. 7 trimester credits. Professors P. E. SMITH, S. R. DETWILER, W. M. COPENHAVER, A. E. SEVERINGHAUS, R. L. ZWEMER, Dr. R. L. CARPENTER, and assistants.

Lectures, conferences, and laboratory.

This course is the same as the Medical School course 101F.

Anatomy 151FS—Gross anatomy. A total of 300 hours in two trimesters.

First year. 15 trimester credits. Professors W. M. ROGERS, B. B. GALLAUDET, and assistants.

Lectures, conferences, and laboratory.

BACTERIOLOGY

Bacteriology 151F—General medical bacteriology and immunology. 9 hours a week for one trimester. Second year. 3 trimester credits. Dr. T. ROSEBURY and assistants.

Lectures, conferences, and laboratory.

Bacteriology 152F—Principles of epidemiology, infection, immunity, serum diagnosis and therapy. 4 hours a week for one trimester. Second year. 4 trimester credits. Professor F. P. GAY.

Lectures given to the dental and medical students together.

BIOLOGICAL CHEMISTRY

Biochemistry 150ST—Introductory biological chemistry. 2 hours lecture and 6 hours laboratory a week in the second and third trimesters. 8 trimester credits. Professor M. KARSHAN and assistants.

DENTISTRY

Dentistry 101—Oral anatomy. A total of 170 hours. First year. 6 trimester credits. Professor M. DIAMOND and assistants.

Lectures, recitations, and laboratory on the anatomy and development of the individual teeth and the dentures as a whole.

Dentistry 202—Dentistry for children. 1 hour a week for one trimester.

Fourth year. 1 trimester credit. Professor E. C. McBEATH and assistants.

Lectures and conferences on operative and preventive dental procedures for children, the handling of the child patient and the application of present knowledge of preventive dentistry to the patient.

Dentistry 203—Dentistry for children, clinic. 6 hours a week for fifteen weeks. Fourth year. 3 trimester credits. Professor E. C. McBEATH and assistants.

Dentistry 204—Dentistry for children, elective.

See Electives, page 36.

Dentistry 105-205—Crown and bridge technic. A total of approximately 210 hours. 105—second year, 3 trimester credits; 205—third year, 4 trimester credits. Professors W. H. CRAWFORD, E. B. HOYT, and assistants.

Laboratory work and lectures on the technical procedures in crown and bridge work.

Dentistry 206—Crown and bridge. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor E. B. HOYT.

Lectures on the technical procedures of crown and bridge work.

Dentistry 207—Crown and bridge. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor E. B. HOYT.

Conference course with outside reading on problems in crown and bridge work.

Dentistry 208a-b—Crown and bridge clinic. A total of 270 hours. 208a—third year, 3 trimester credits; 208b—fourth year, 6 trimester credits. Professors A. T. ROWE, E. B. HOYT, W. H. CRAWFORD, and assistants.

Infirmary practice and demonstrations in crown and bridge construction.

Dentistry 209—Crown and bridge elective.

See Electives, page 36.

Dentistry 212—Oral diagnosis. 1 hour a week for three trimesters. Third year. 3 trimester credits. Professor H. J. LEONARD.

Lecture and conference course in oral examination and charting, history taking, methods of testing, dental X-ray interpretation, oro-dental symptomatology, and indications for various types of treatment.

Dentistry 213—Oral diagnosis. A total of 30 hours. Third year. 1 trimester credit. Dr. D. E. ZISKIN and clinical staff.

Clinical practice and demonstrations in oral examination and charting, history taking, dental X-ray interpretation, oral diagnosis and treatment planning.

Dentistry 214—Oral diagnosis elective.

See Electives, page 36.

Dentistry 115—Oral histology and embryology. 3 hours a week for two trimesters. First year. 2 trimester credits. Professor C. F. BODECKER and Dr. E. APPLEBAUM.

Lectures and laboratory work on the microscopic structures of the oral tissues and the application of this knowledge to technical dentistry.

Dentistry 216—Oral histology and embryology elective.

See Electives, page 37.

Dentistry 221—Oral hygiene and prophylaxis. 3 hours a week for two trimesters. Second year. 2 trimester credits. Professor A. V. HUGHES, Miss K. F. HOLLIS, and assistants.

Lectures, laboratory, and clinical work on personal dental hygiene and dental prophylactic technic.

Dentistry 222a-b—Oral hygiene. 2 hours a week for one trimester and one hour a week for another trimester. Third year. 3 trimester credits. Professor H. J. LEONARD.

Lectures and conferences on the application of bacteriology, physiology, and biochemistry to preventive dentistry. Community dentistry.

Dentistry 223—Oral diagnosis. 3 hours a week for one trimester. Third year. 1 trimester credit. Professor H. J. LEONARD and staff.

Clinical practice and demonstrations in the diagnosis of the fundamental causes of dental diseases and their prevention.

Dentistry 224a-b—Oral hygiene elective.

See Electives, page 37.

Dentistry 126—Physical properties and dental materials. 3 hours a week for two trimesters. Second year. 2 trimester credits. Professor W. H. CRAWFORD.

Metallurgical processes and apparatus. Physical and chemical properties of the metals and other materials used in dentistry. Lectures and laboratory work.

Dentistry 227—Physical properties of dental materials elective.

See Electives, page 37.

Dentistry 131—Operative dentistry technic. A total of 210 hours in three trimesters. Second year. 7 trimester credits. Professors L. L. HARTMAN, M. BUCHBINDER, Drs. G. F. LINDIG, I. L. HUNT, JR., and assistants.

Lectures and laboratory work on operative instruments and materials, their care and uses, root canal technic and the technic of cavity preparations and fillings.

Dentistry 132—Operative dentistry. 1 hour a week for one trimester. Second year. Professor L. L. HARTMAN and assistants.

Lectures on laboratory procedure in operative dentistry.

Dentistry 233—Operative dentistry. 1 hour a week for two trimesters. Third year. 2 trimester credits. Professors L. L. HARTMAN and M. BUCHBINDER.

Lectures and conferences on operative dentistry procedures.

Dentistry 234a-234b—Operative dentistry clinic. A total of 660 hours. 234a—third year, 10 trimester credits; 234b—fourth year, 12 trimester credits. Professors L. L. HARTMAN, M. BUCHBINDER, Drs. G. F. LINDIG, I. L. HUNT, JR., and assistants.

Clinical practice and demonstrations in operative dentistry.

Dentistry 235—Operative dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor L. L. HARTMAN.

Conference course on problems in operative dentistry.

Dentistry 239a-b—Operative dentistry elective.

See Electives, page 36.

Dentistry 241—Orthodontia. 60 hours of laboratory work. Third year. 1 trimester credit. Professor L. M. WAUGH, Drs. H. U. BARBER and E. G. MURPHY.

Laboratory instruction in free-hand soldering, the fundamental technic of making appliances and space retainers.

Dentistry 242—Orthodontia. 2 hours of lecture per week for one trimester and a total of 30 hours of demonstrations in the clinic. Third year. 2 trimester credits. Professor L. M. WAUGH and staff.

Orthodontic fundamentals with special emphasis on preventive orthodontia or the factors which predispose to malocclusion.

Dentistry 243a-b—Orthodontia electives.

See Electives, pages 36 and 37.

Dentistry 246—Oral pathology. 1 hour a week lecture for three trimesters. 3 hours a week laboratory for two trimesters. Third year. 5 trimester credits. Professor L. R. CAHN and assistant.

Lectures, conferences and laboratory work on the pathology of the diseases of the jaws, mouth and teeth.

Dentistry 247a-b—Oral pathology electives.

See Electives, page 37.

Dentistry 251a-b—Periodontia clinic. 60 hours. 251a—third year; 251b—fourth year. 2 trimester credits. Professors W. B. DUNNING, H. J. LEONARD, I. HIRSCHFELD, and H. HOLLIDAY.

Lectures and clinical work in the diagnosis and treatment of periodontoclasia.

Dentistry 252—Periodontia. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professors H. J. LEONARD and I. HIRSCHFELD.

Lectures and conferences on the theory and practice of periodontia.

Dentistry 253a-b-c—Periodontia electives.

See Electives, pages 36 and 37.

Dentistry 155a-155b—Prosthetic dentistry technic. A total of approximately 270 hours. 155a—first year, 1 trimester credit; 155b—second year, 8 trimester credits. Professors H. A. YOUNG, H. W. GILLETT, and assistants.

Lectures and laboratory on the mechanics of denture construction.

Dentistry 156—Prosthetic dentistry. 1 hour a week for one trimester. Second year. 1 trimester credit. Professor A. T. ROWE.

Lectures and conferences on materials and principles of denture construction.

Dentistry 256—Prosthetic dentistry. 1 hour a week for one trimester. Third year. 1 trimester credit. Professor A. T. ROWE.

Lectures and conferences on correlation of prosthetic dentistry with other branches of dental health service.

Dentistry 258a-b—Prosthetic dentistry clinic. A total of 330 hours. 258a—third year, 6 trimester credits; 258b—fourth year, 5 trimester credits. Professors A. T. ROWE, W. H. CRAWFORD, E. B. HOYT, H. A. YOUNG, Drs. F. C. KUIVER, G. P. SMITH, and assistants.

Infirmary practice and demonstrations in denture construction.

Dentistry 259—Prosthetic dentistry. 1 hour a week for one trimester. Fourth year. 1 trimester credit. Professor A. T. ROWE.

Conference course on fundamental problems in prosthetic dentistry.

Dentistry 260—Prosthetic dentistry elective.

See Electives, page 36.

Dentistry 165—Oral radiology. 1 hour a week for one trimester. Second year. 1 trimester credit. Professor H. HOLLIDAY.

Lectures, readings, and discussions on topics relative to oral radiology.

Dentistry 266—Oral radiology elective.

See Electives, page 36.

Dentistry 267—Oral radiology practice. 30 hours. Third year. 1 trimester credit. Professor H. HOLLIDAY and assistants.

Practice in exposing, processing, and mounting dental radiographs.

Dentistry 168—Principles of surgery. 1 hour a week for two trimesters. Second year. 2 trimester credits. Professor D. B. PARKER.

Lectures and conferences on general surgical diseases and the principles of their treatment.

Dentistry 270—Oral surgery. 1 hour a week lecture for one trimester. Third year. 1 trimester credit. Professors D. B. PARKER and F. S. McCAFFREY.

Lectures and conferences on local and general anesthesia and exodontia.

Dentistry 271a-271b—Oral surgery clinic. A total of 60 hours. 271a—third year, 1 trimester credit; 271b—fourth year, 1 trimester credit. Professors H. S. DUNNING, A. BERGER, D. B. PARKER, F. S. McCAFFREY, S. BIRENBACH, and assistants.

Clinical practice and demonstration on local anesthesia and exodontia. Time is also assigned to observation of oral surgical operations and to an organized oral pathology clinic.

Dentistry 272a-b—Oral surgery. 1 hour a week for four trimesters. 272a—third year, 1/2 trimester credit; 272b—fourth year, 1 1/2 trimester credits. Professors H. S. DUNNING and A. BERGER.

Lectures and conferences on oral and maxillo-facial surgery.

Dentistry 273—Oral surgery. A total of 30 hours. Fourth year. No credit. Professors H. S. DUNNING, A. BERGER, D. B. PARKER, and F. S. McCAFFREY.

Demonstration of oral and maxillo-facial lessons.

Dentistry 274—Oral surgery elective.

See Electives, page 36.

Dental Medicine 278—General survey of medicine. 2 hours per week for three trimesters. 6 trimester credits. Fourth year. Professor E. C. McBEATH and associates.

Lectures, conferences and clinics covering the field of general medicine.

Dental Medicine 279—Medico-dental clinic. A total of 30 hours of clinic in three trimesters. Fourth year. 1 trimester credit. Professor E. C. McBEATH and associates.

Clinics in small groups in which the dental patients are studied for systemic relationships.

Dentistry 281—Theory and practice of dentistry. 1 hour a week for three trimesters. Fourth year. 3 trimester credits. Professors H. W. GILLET, W. B. DUNNING, and M. C. TRACY.

A lecture and conference course including an undergraduate thesis on the history of dentistry, dental ethics, dental economics, dental jurisprudence and other subjects.

NEUROLOGY

Neurology 150—Neuro-anatomy. 2 hours of lecture and 6 hours of laboratory a week for one trimester. First year. 4 trimester credits. Professors A. ELWYN, O. S. STRONG, Drs. B. SALZER, L. V. LYONS, and R. M. BRICKNER.

Lectures and demonstrations on the gross anatomy, structure and functions of the central nervous system. This course is equivalent to the Medical School course *Neurology 101*.

PATHOLOGY

Pathology 150FS—General and special pathology. 14 hours lecture and laboratory a week for one trimester and 19 hours a week for two weeks of the second. Second year. 9 trimester credits. Professors J. W. JOBLING, M. N. RICHTER and assistants.

Lectures and laboratory.

This course includes the first part (general pathology) of the Medical School course *Pathology 101*, but does not include the details of special pathology.

PHARMACOLOGY

Pharmacology 150—General pharmacology. One lecture, one conference, and one three-hour laboratory period for two trimesters. 6 trimester credits. Second year. Professor C. C. LIEB, Drs. W. R. BEAVEN, S. N. BLACKBERG, and M. HUMBERT.

Lectures and laboratory. In this course the pharmacological action of drugs on man and lower animals is studied. Short courses in pharmacy and prescription writing are included.

Pharmacology 250—Applied pharmacology. 1 hour a week for one trimester. Third year. 1 trimester credit. Dr. M. HUMBERT.

Lectures and conferences on drugs and other therapeutic agents used in dentistry.

PHYSIOLOGY

Physiology 150—Mammalian physiology. 9 hours a week for two trimesters. First year. 9 trimester credits. Professor H. B. WILLIAMS and assistants.

Lectures, conferences and laboratory. This course is equivalent to the Medical School course *Physiology 101*, the two classes being taught together for lectures.

PSYCHIATRY

Psychiatry 150T—Psychopathology. 1 hour a week for one trimester. Second year. 1 trimester credit or 1 point. Professor C. I. LAMBERT.

Lectures on the structural basis of the mind; the instincts and emotions; development of the personality; social adjustment, failures in adjustment, compensatory reactions; types of abnormal behavior, emotional, neurotic and personality factors in physical illness; functional disorders with special reference to dental practice. General principles of mental hygiene.

This course is the same as the Medical School course *Psychiatry 101*.

PUBLIC HEALTH

Public Health 250—Preventive medicine and public health practice. 1 hour a week for three trimesters. Fourth year. 3 trimester credits. Professor H. EMERSON and assistants.

This course is the same as the Medical School course, preventive medicine and *Public Health Administration 201FST*, the two classes being taught together.

ELECTIVES

After completing a certain proportion of the work of the fourth year, qualified students may choose elective work, with the consent of the head of the department and the Class Faculty.

Electives are of five general types:

1. Reading and conference courses, usually leading to the preparation of a paper on some phase of a subject.
2. Clinic courses consisting of further practice in the regular subjects or some phase of special practice.
3. Technic courses consisting of training and practice in special methods in technical dentistry.
4. Scientific laboratory courses consisting of advanced work in the scientific subjects of the dental curriculum.
5. Special researches.

The elective time may also be devoted and assigned to some one of the regular subjects, such as oral hygiene or public health, where a bit of original investigation is required to which the student would like to devote more time than the regular course provides.

It is not possible to offer all of the courses which may be listed, due to overcrowded infirmary or other reasons. In general, students are expected to have completed their requirements in a subject before electing advanced work in it. Otherwise it is desired to allow the greatest freedom in elective work consistent with the regular work of the School, in order that students may start following the lines of their special interests.

Each student eligible for elective work will confer with the Chairman of the Curriculum Committee, who will arrange for time and place of meeting. Students will be held for the successful completion of elective courses, including attendance and examination.

READING AND CONFERENCE COURSES

Dentistry 204—Dentistry for children. Professor McBEATH.

Dentistry 209—Crown and bridge work. Professor HOYT.

Dentistry 224a—Oral hygiene. Professor LEONARD.

Dentistry 239a—Operative dentistry. Professor HARTMAN.

Dentistry 253a—Periodontia. Professor LEONARD.

Dentistry 260—Prosthetic dentistry. Professor ROWE.

CLINIC COURSES

Dentistry 214—Oral diagnosis. Professor ZISKIN.

Dentistry 243a—Orthodontia. Professor WAUGH.

Dentistry 253b—Periodontia. Professor HIRSCHFELD.

Dentistry 274—Oral surgery. Professor DUNNING and staff.

TECHNIC COURSES

Dentistry 239b—Operative technic—porcelain inlay. Dr. HUNT, JR.

Dentistry 266—Radiography. Professor HOLLIDAY.

LABORATORY COURSES

Dentistry 216—Oral histology. Professor BODECKER.

Dentistry 247a—Oral pathology. Professor CAHN.

Dentistry 247b—Clinical pathology. Dr. BARTELS.

RESEARCH COURSES

Dentistry 224b—Oral hygiene. Professor LEONARD.

Dentistry 227—Physical properties of dental materials. Professor CRAWFORD.

Dentistry 243b—Orthodontia. Professor WAUGH.

Dentistry 253c—Periodontia. Professors LEONARD and HIRSCHFELD.

Special research problems in fundamental science and other dental science may be arranged with the teachers concerned.

REQUIRED TEXTBOOKS

The following list includes most of the books recommended. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York. These prices are liable to fluctuation. As a rule, the latest editions only of the textbooks should be purchased. Students are warned against buying any books until specifically advised by the departments concerned.

ANATOMY, GROSS. Cunningham, *Manual of Practical Anatomy*. Choice of Gray, *Anatomy*; Cunningham, *Textbook of Anatomy*; Piersol, *Human Anatomy*.

ANATOMY, MICROSCOPIC. Choice of Maxinow, *Textbook of Histology*; Jordan, *A Textbook of Histology*; Bailey, Strong, and Elwyn, *Textbook of Histology*; Bremer, *Textbook of Histology*.

BACTERIOLOGY. Choice of Park and Williams, *Pathogenic Micro-organisms*, \$6.50; Zinsser, *Text-book of Bacteriology*, \$7.50.

BIOCHEMISTRY. Bodansky, *Introduction to Physiological Chemistry*, \$4.00; Hawk and Bergeim, *Practical Physiological Chemistry*, \$6.50.

DENTISTRY

Anatomy, oral. Diamond, *Dental Anatomy*, \$5.00.

Children's dentistry. Mimeographed notes furnished by the Department.

Crown and bridge. Mimeographed notes furnished by the Department.

Diagnosis, oral. Mimeographed notes furnished by the Department.

Histology, oral. Bodecker, *Fundamentals of Dental Histology and Embryology*, \$6.50.

Hygiene, oral. Fones, *Mouth Hygiene*, \$5.00, or Fones, *Preventive Dentistry*, \$2.50. Mimeographed notes are also furnished by the Department.

Operative dentistry. Black, *Operative Dentistry*, Vols. 1 and 2, \$12.00. Mimeographed notes are also furnished by the Department.

Periodontia. Mimeographed notes furnished by the Department.

Physical properties of dental materials. Bureau of Standards Research Paper No. 32, United States Government Printing Office, 35 cents.

Prosthetic dentistry. Required: Nichols, *Prosthetic Dentistry*; recommended but not required: E. Kennedy, *Partial Denture Construction*; Turner, *American Textbook of Prosthetic Dentistry*; Wilson, *Dental Prosthetics*.

Radiography. Ennis, *Dental Roentgenology*, \$5.00, Lea and Febiger. (Recommended but not required.)

Surgery, oral. Berger, *Principles and Technique of Oral Surgery*, \$7.00; Fischer and Reithmuller, *Local Anesthesia*, \$4.50; Blair and Ivy, *Essentials of Oral Surgery*; De Costa, *General Surgery*; Scudder, *Tumors of the Jaws*.

NEURO-ANATOMY. Strong, *Neuro-Anatomy*, \$1.50.

PATHOLOGY. McCallum, *Pathology*; Delafield and Prudden, *Pathology*.

PHARMACOLOGY. *Useful Drugs*, \$0.60; choice of Cushny, *Pharmacology and Therapeutics*, \$6.00; Dixon, *Manual of Pharmacology*, \$7.00; Sollmann, *Manual of*

Pharmacology, \$7.50; Bastedo, *Materia Medica, Pharmacology, Therapeutics and Prescription Writing*.

PHYSIOLOGY. Starling, *Human Physiology*.

PRACTICE OF MEDICINE. Choice of Cecil, *Text Book of Medicine*, \$9.00; Osler and McCrae, *Practice of Medicine*, \$7.50.

PSYCHIATRY. White, *Introduction to the Study of the Mind*, \$2.00.

PUBLIC HEALTH. Not required, but recommended for supplementary reading. Park, *Public Health and Hygiene*; Rosenau, *Preventive Medicine*; Moore, *Public Health in the United States*; Price, *Public Health and Hygiene*.

DICTIONARY. Choice of Stedman, *Medical Dictionary*, \$7.00; Dorland, *Illustrated Medical Dictionary*, \$8.00; Gould, *The Student's Medical Dictionary*, \$2.00.

ACADEMIC CALENDAR

1933

- July 6 Thursday. Registration in Summer Session begins.
- July 8 Saturday. Last day of registration for students desiring full credit.
- July 10 Monday. Thirty-fourth Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.00.
- July 11 Tuesday. Last day for making changes in program for the Summer Session.
- August 1 Tuesday. Last day for filing applications for the degrees of Master of Science, and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December. The privilege of later application may be granted on payment of a fee of \$6.00.
- Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.00.
- August 18 Friday. Thirty-fourth Summer Session ends.
- September 11 Monday. Last day for filing applications for college entrance examinations. The privilege of later application may be granted on payment of the regular fee plus a late fee of \$1.00.
- September 18 Monday. Examinations for entrance and for deficient and debarred students begin.
- September 20 Wednesday. Placement examinations required of new students admitted to Columbia College.
- September 21 Thursday. Placement examinations required of new students admitted to Columbia College.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES) FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6.00 except in University Extension where students may register later without credit and without payment of that fee.

- September 20 Wednesday, to September 30, Saturday. For University Extension students desiring credit.
- September 22 Friday, to September 27, Wednesday. For students in Barnard College and in the School of Law.
- September 23 Saturday, to September 27, Wednesday. For students in the Schools of Education and Practical Arts.
- September 25 Monday, to September 27, Wednesday. For students in Columbia College, Seth Low Junior College, the Schools of Architecture, Business (undergraduate), Dental and Oral Surgery, Engineering, Journalism, Library Service, Medicine, Optometry, and for University Undergraduates.

The Medical and Dental Schools have a slightly different schedule of holidays, etc. Please see special calendar.

September 25 Monday, to September 30, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business, and Public Health.

September 27 Wednesday. Winter Session, 180th year begins.

September 28 Thursday. Classes begin.

September 30 Saturday. Last day for registration in the Schools of Education and Practical Arts for students desiring full credit.

October 2 Monday. Last day for filing applications for all degrees and certificates to be conferred in October, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.00.

Last day for filing essays for the degree of Master of Science to be conferred in October.

October 7 Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy, and Pure Science.

October 14 Saturday. Last day for making changes in program for students in the Faculties of Political Science, Philosophy, and Pure Science.

October 17 Tuesday. Stated meeting of University Council.

November 7 Tuesday. Election Day, holiday.

November 15 Wednesday. Last day for filing essays for the degree of Master of Arts to be conferred in December.

November 16 Thursday. Mid-term date, Winter Session.

November 28 Tuesday. Annual Thanksgiving Service in St. Paul's Chapel.

November 30 Thursday, to December 2, Saturday, inclusive. Thanksgiving holidays.

December 1 Friday. Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in February. The privilege of later application may be granted on payment of a fee of \$6.00.

December 15 Friday. Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken at mid-year. The privilege of later application may be granted on payment of a fee of \$6.00.

December 19 Tuesday. Stated meeting of University Council.

December 20 Wednesday, to

1934

January 2 Tuesday, inclusive. Christmas holidays.

January 7 Sunday. Annual Commemoration Service in St. Paul's Chapel.

January 24 Wednesday. Mid-year examinations begin.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE SPRING SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6.00 except in University Extension where students may register later without credit and without payment of that fee.

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|----------|----|---|
| January | 23 | Tuesday, to January 29, Monday. For students in the School of Medicine. |
| February | 1 | Thursday, to February 10, Saturday. For University Extension students desiring credit. |
| February | 3 | Saturday, to February 6, Tuesday, for all other students. |
| February | 1 | Thursday. Last day for filing applications for all degrees and certificates to be conferred in February, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.00. |
| February | 6 | Tuesday. Winter Session ends.
Last day for filing essays for the degrees of Master of Arts and Master of Science to be conferred in February. |
| February | 7 | Wednesday. Spring Session begins. Classes begin. |
| February | 10 | Saturday. Last day of registration in the Schools of Education and Practical Arts for students desiring full credit. |
| February | 12 | Monday. Alumni Day. Not a University holiday. |
| February | 17 | Saturday. Last day for making changes in program, except for students in the Faculties of Political Science, Philosophy, and Pure Science. |
| February | 20 | Tuesday. Stated meeting of University Council. |
| February | 22 | Thursday. Washington's Birthday, holiday. |
| February | 24 | Saturday. Last day for making changes in program for students in the Faculties of Political Science, Philosophy, and Pure Science. |
| March | 1 | Thursday. Last day for filing applications for University Fellowships and University Scholarships.
Last day for filing applications for the degrees of Master of Arts, Master of Science, and Master of Laws to be conferred in June. The privilege of a later application may be granted on payment of a fee of \$6.00. |
| March | 10 | Saturday. Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.00. |
| March | 27 | Tuesday. Mid-term date, Spring Session. |
| March | 29 | Thursday, to April 2, Monday, inclusive. Easter holidays. |
| April | 2 | Monday. Last day for filing applications for examination for the degrees of Doctor of Philosophy and Doctor of Law to be conferred in June.
Last day for filing Cutting Fellowship applications. |

- April 16 Monday. Last day for filing applications for all degrees and certificates to be conferred in June, except Master of Arts, Master of Science, Master of Laws, Doctor of Philosophy, and Doctor of Law. The privilege of later application may be granted on payment of a fee of \$6.00.
- Last day for filing applications for deficiency or make-up examinations in the School of Law to be taken in May. The privilege of later application may be granted on payment of a fee of \$6.00.
- April 17 Tuesday. Stated meeting of University Council.
- May 1 Tuesday. Last day for students in Columbia College and Seth Low Junior College to file choice of studies for following year. The privilege of filing such choice later may be granted on payment of a fee of \$6.00.
- Last day for filing applications for scholarships in the Schools of Law, Engineering, Architecture, and Columbia College.
- May 21 Monday. Final examinations for all courses begin.
- May 22 Tuesday. Last day for filing essays for the degrees of Master of Arts and Master of Science to be conferred in June.
- May 30 Wednesday. Memorial Day, holiday.

COMMENCEMENT, JUNE 3 TO 6

- June 3 Sunday. Baccalaureate Service.
- June 4 Monday. Class Day.
- June 5 Tuesday. Conferring of degrees.
- June 13 Wednesday. Spring Session ends.
- June 18 Monday. Entrance examinations begin.
- July 5 Thursday. Registration in Summer Session begins.
- July 7 Saturday. Last day of registration for students desiring full credit.
- July 9 Monday. Thirty-fifth Summer Session begins. The privilege of registration on or after this date may be granted on payment of a fee of \$6.00.
- July 10 Tuesday. Last day for making changes in program for the Summer Session.
- August 1 Wednesday. Last day for filing applications for the degrees of Master of Science, and Master of Laws to be conferred in October and for the degree of Master of Arts to be conferred in December. The privilege of later application may be granted on payment of a fee of \$6.00.
- Last day for filing applications for deficiency and special examinations. The privilege of later application may be granted on payment of a fee of \$6.00.
- August 17 Friday. Thirty-fifth Summer Session ends.
- September 10 Monday. Last day for filing applications for college entrance examinations. The privilege of later applications may be granted on payment of the regular fee plus a late fee of \$1.00.
- September 17 Monday. Examinations for entrance and for deficient and debarred students begin.

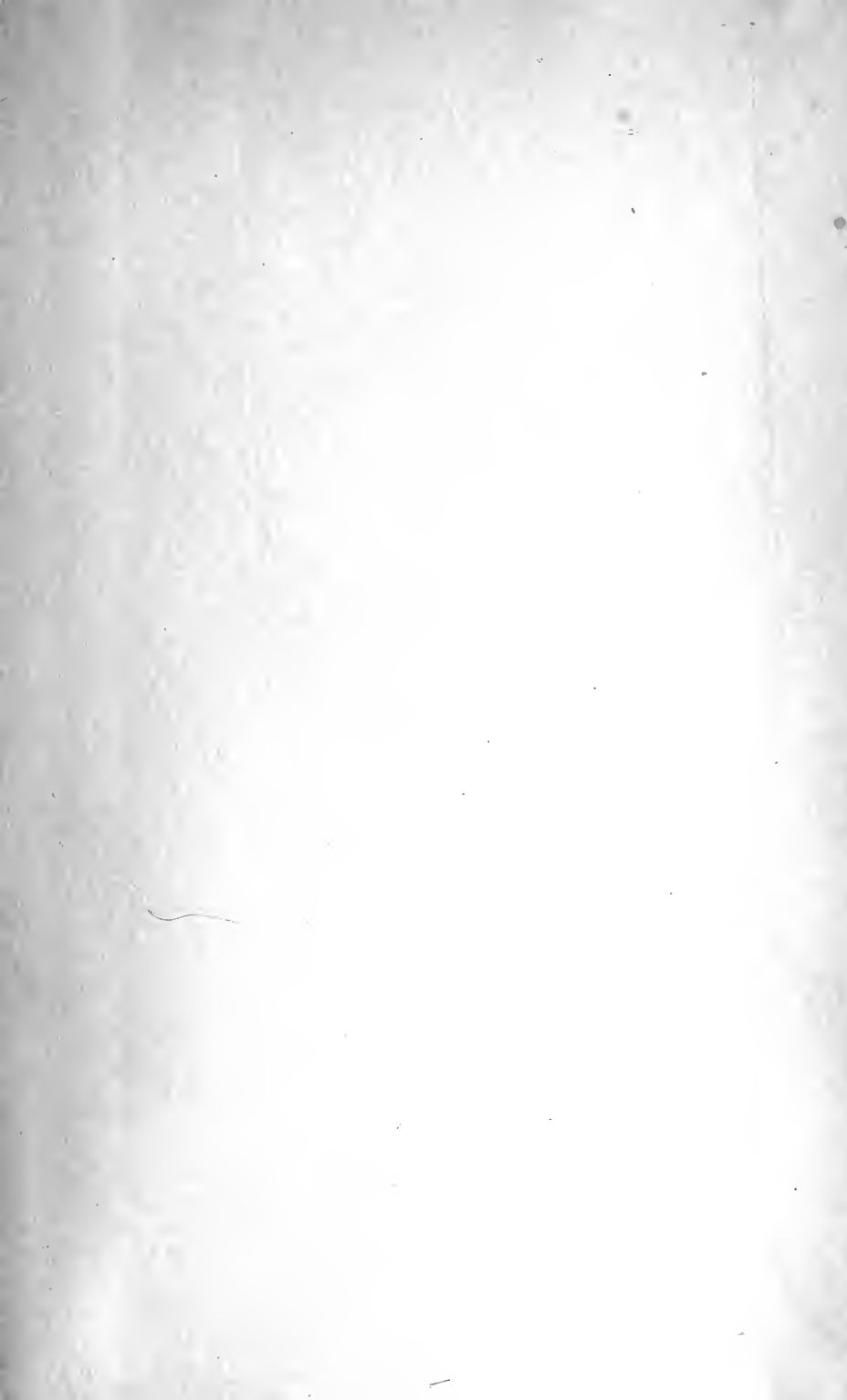
- September 19 Wednesday. Placement examinations required of new students admitted to Columbia College.
- September 20 Thursday. Placement examinations required of new students admitted to Columbia College.

DATES FOR REGISTRATION (INCLUDING PAYMENT OF FEES)
FOR THE WINTER SESSION

The privilege of registration after the periods specified may be granted on payment of a late registration fee of \$6.00 except in University Extension where students may register later without credit and without payment of that fee.

- September 19 Wednesday, to September 29, Saturday. For University Extension students desiring credit.
- September 21 Friday, to September 26, Wednesday. For students in Barnard College and in the School of Law.
- September 22 Saturday, to September 26, Wednesday. For students in the Schools of Education and Practical Arts.
- September 24 Monday, to September 26, Wednesday. For students in Columbia College, Seth Low Junior College, the Schools of Architecture, Business (undergraduate), Dental and Oral Surgery, Engineering, Journalism, Library Service, Medicine, Optometry, and for University Undergraduates.
- September 24 Monday, to September 29, Saturday. For graduate students in Political Science, Philosophy, Pure Science, Business, and Public Health.

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- September 26 Wednesday. Winter Session. 181st year begins.
- September 27 Thursday. Classes begin.





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